Panasonic

PC Software Package
Operating Instructions

Model No. WV-AS710

Before attempting to connect or operate this product,
please read these instructions carefully and save this manual for future use.

CONTENTS

FEATURES 4
Operation 10
- How to Use the "TOP MENU" 12
- How to Use the Camera Page 13
- Camera Selection Menu 14
- Picture Display Area 15
- Live Mode Panel 17
- Playback of Recorded Pictures 20
- Searching Menu 23
- Play Mode Panel 27
- Quad Screen 29
- Installation of the MPEG-4 Plug-in Software 30
- Installation of the MPEG-4 Player 31

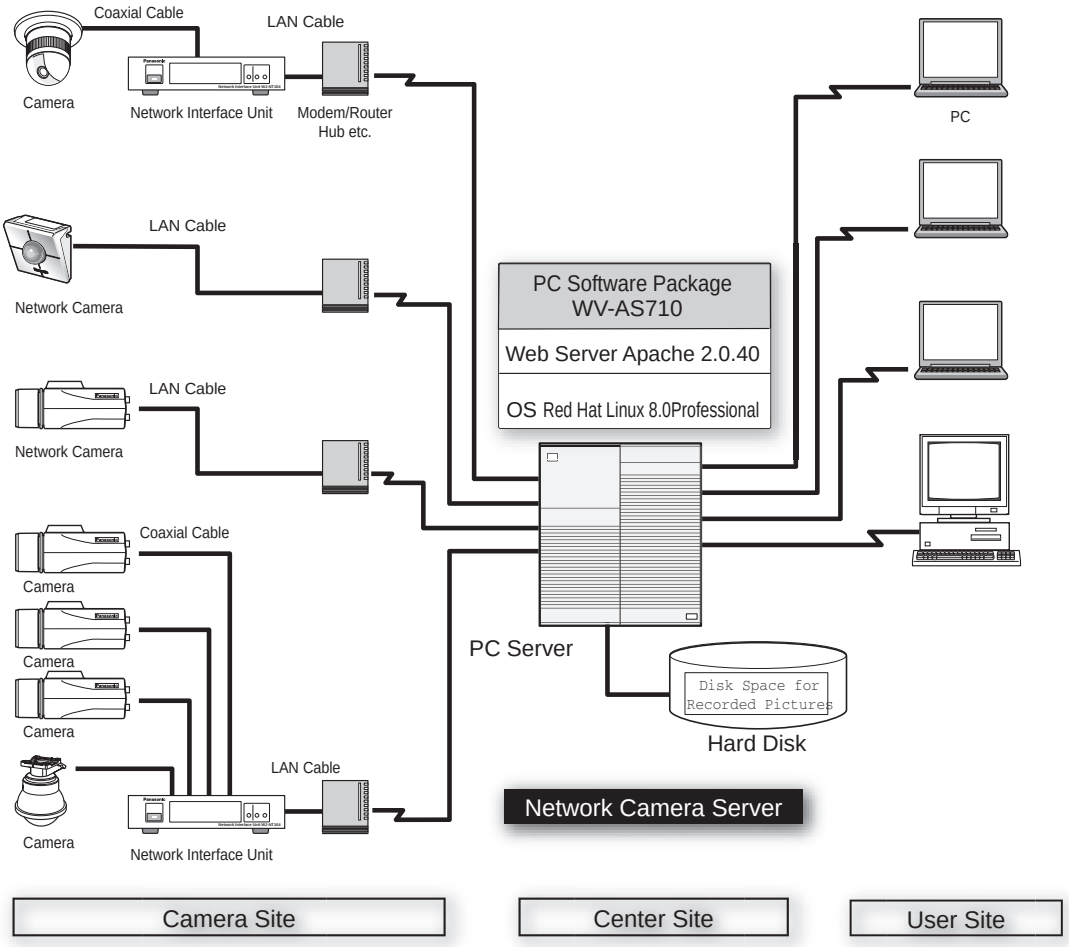
Installation 32
- Procedures to Establish the Network Camera Server 32
- Selection of the System Type 33
- Confirmation of the Directory Structure 34
- Installation of Red Hat Linux 35
- Allocation of Disk Space (When "Live View & Recording" is Selected) 36
- How to Allocate Disk Space 37
- Installation of the WV-AS710 38
- Starting up the Network Camera Server 39
- After the Installation of the WV-AS710 41
- Stop the WV-AS710 41
- Uninstallation 42

Administration 43
- How to Display the "Administrator's Page" 43
- List of Settings 45
- System Type 46
- Camera Setting 47
- Camera Properties 49
- Camera Sleep Schedule 51
- Camera Sleep Schedule Properties 52
- Recording Status List 54
- Disk Space Allocation for Camera # 55
- Disk Space Setting for Camera # 56
- Disk Space Addition for Camera # 57
- Delete Disk Space for Camera # 58
- Clear Protected Disk Space for Camera # 59
- Disk Space Allocation 60
- Recording Schedule List 61
- Recording Schedule Properties 62
- Alarm Recording 64

Authentication 66
Group 67
User 68
User List 69
User Registration 70
Change User Profile 71
Camera Grouping 72
Group Name 73
System Properties 74
Alarm Notification 77
E-Mail Setting 78
Stop and Restart 79
Troubleshooting..... 80

FEATURES

The PC Software Package WV-AS710 (hereinafter referred to as WV-AS710) is designed to deliver pictures from cameras at remote locations to personal computers (PCs) via an IP network such as the Internet/Intranet. Install the WV-AS710 in a PC server whose OS is Red Hat Linux 8.0 Professional to run the network camera server (a PC server in which the WV-AS710 is installed is referred to as a network camera server in this operating manual). Users can browse delivered pictures using web browsers on PCs.



Camera Site

When using cameras connected by coaxial cable

Access the network using the network interface unit WJ-NT104. The network camera server identifies the IP address and the camera channels of the network interface unit, and acquires camera pictures and controls the cameras.

When using network cameras with built-in 10BASE-T/100BASE-TX Ethernet port connected by LAN cable

Access the network assigning unique IP addresses to each camera. The network camera server identifies the IP addresses assigned to each camera, and acquires camera pictures and controls the cameras.

User Site

Users can browse camera pictures by entering the address of the network camera server in the address box of a web browser in the same way they access web pages using a web browser. Users don't need to remember the IP address of each camera thanks to menus displayed in the web browser that allow them to select and operate the desired camera.
When connected cameras are compatible with MPEG-4, users can browse camera pictures in the MPEG-4 format by downloading the MPEG-4 Plug-in Software from the network camera server and installing it in the PC. Users also can download recorded pictures from the network camera server and play them as MPEG-4 motion pictures.
It is required to download the MPEG-4 Player to play downloaded pictures. Download the MPEG-4 Player from the network camera server and install it in the PC.

Network Monitoring

By using the network camera server, users can browse JPEG or MPEG-4 format pictures from cameras at remote locations in the same way they access web pages using a web browser. Multiple users can browse pictures from the same camera simultaneously, and also each user can browse pictures from different cameras.

Recordings

Authenticated users can record camera pictures delivered to the network camera server on to hard disks.

Alarm Recordings

When the network camera server receives an alarm signal from a camera, pictures from the camera can be recorded on to a hard disk when an alarm occurs. In this case, sending e-mail to specified addresses to notify of an alarm occurring is also possible. The recipients of the alarm mail can browse the recorded camera pictures by following a link contained in the mail.

Note: The network camera server receives alarm signals only when cameras use the Panasonic protocol to transmit alarm signals.

Administration

Administration of the network camera server (for example, setting of camera numbers) can be performed using a web browser installed on a PC connected to the Internet.
It is unnecessary to install special software on a PC since the network camera server is fully operable with a web browser.

■ System Requirements

System requirements for using the network camera server differ depending on the sites, as described below

Center site

Prepare a PC meeting the following requirements to install the WV-AS710 on.

PC	CPU: Pentium III 1.4GHz or higher
Memory	512 MB of RAM or more
LAN card	100BASE-TX controller or 1000BASE-T/TX/SX controller (Installing three controllers is recommended: for camera sites, for user sites, for maintenance)
OS	Red Hat Linux 8.0 Professional
CD-ROM drive	Required to install the WV-AS710
USB port	Required to install the hardware key (using an USB hub is available)
Hard disk	2 GB or more (except disk space for recorded pictures)
Core Component	Apache HTTP Server 2.0.40 or later

When using the function for alarm notification by e-mail, establishment of a mail system including a mail server is required.

Camera site

The following cameras can be connected to the network camera server.

Cameras	WV-NM100, WV-NP472 (Ver. 1.03E or later), WV-NS320, WV-NS324, or cameras that can be connected to the network interface unit WJ-NT104
Controllable cameras	WV-NM100, WV-NS320, WV-NS324, or cameras controllable by WJ-NT104
Maximum camera number	"Live View & Recording": 64 cameras "Live View Only": 128 cameras

User site

Recommended environment to access the network camera server is as below.

For browsing JPEG

PC	PC/AT compatible
Recommended CPU	Intel® Pentium® lll or higher
Memory	128MB of RAM or more
OS	Microsoft® Windows® 98 Second Edition Microsoft® Windows NT® 4.0 SP6a Microsoft® Windows® Millennium Edition Microsoft® Windows® 2000 Professional Microsoft® Windows® 2000 Server Microsoft® Windows® XP Home Edition Microsoft® Windows® XP Professional
Web browser	Microsoft® Internet Explorer 5.5 SP2 Microsoft® Internet Explorer 6.0 SP1 Netscape Navigator 4.78

Notes:

- It is required to configure a web browser to accept cookies from the network camera server. If the web browser is configured to "Block All Cookies", set it to "Accept All Cookies". If it is configured to prompt you when a cookie is sent, click the [Allow] button in the displayed dialog window.
- Netscape Navigator can be used only on Microsoft® Windows® XP and/or Microsoft® Windows® 2000. When Netscape Navigator is used, the recorded time and date will not be displayed during playback of recorded pictures stored on the network camera server.
- When Internet Explorer 5.5 SP2 or 6.0 SP1 is used with either Microsoft® Windows NT® 4.0 SP6a, Microsoft® Windows® XP Home Edition, and Microsoft® Windows® XP Professional, Java™ 2 Runtime Environment, Standard Edition 1.4.1 of Sun Microsystems is required. Confirm the Java Plug-in control panel is installed on the PC. If it is not installed, access the following address to download it. (The address of the downloading site is subject to change.)
  http://java.sun.com/products/plugin/

For browsing camera pictures with MPEG-4 Plug-in Software

PC	PC/AT compatible
Recommended CPU	Intel® Pentium® lll or higher
Memory	128 MB of RAM or more
Monitor (Resolution)	True Color 24 bit or more (XGA or more (1024 x 768 or more))
OS	Microsoft® Windows® 2000 Professional
	Microsoft® Windows® 2000 Server
	Microsoft® Windows® Millennium Edition
	Microsoft® Windows® XP Home Edition
	Microsoft® Windows® XP Professional
Web browser	Microsoft® Internet Explorer 5.5 SP2
	Microsoft® Internet Explorer 6.0 SP1

For using MPEG-4 Player

PC	PC/AT compatible
Recommended CPU	Intel® Pentium® lll or higher
Memory	128 MB of RAM or more
Monitor (Resolution)	True Color 24 bit or more (XGA or more (1024 x 768 or more))
OS	Microsoft® Windows® 2000 Professional
	Microsoft® Windows® 2000 Server
	Microsoft® Windows® Millennium Edition
	Microsoft® Windows® XP Home Edition
	Microsoft® Windows® XP Professional
Hard disk	10 MB or more to install MPEG-4 Player

About Network Environment

Depending on the traffic on the network or the security system of the LAN (e.g. firewall), it may be difficult to display HTML documents delivered from the network camera server correctly. The HTML documents delivered from the network camera server contain JavaScript and commands to CGIs. When a PC is set to ignore these commands, HTML documents may not be displayed correctly.

Notes:

- **When the traffic on the network is heavy**
  When the transmission speed is slow or the traffic on the network is too heavy to receive image data, it may be difficult to browse camera pictures and a still picture indicating the failure to acquire an image ("Image capture has failed.") may appear. When this still picture appears frequently, adjust the time interval for acquiring image data.
- **When a firewall (including software) is installed**
  - Allow HTTP access to a port for Apache (default port number: 80).
  - Allow HTTP access to a port for WV-AS710 (default port number: 8080). The port for WV-AS710 can be changed during installation.
  - Allow access to all of the UDP ports. Otherwise, it is impossible to browse motion pictures (MPEG-4).

■ Standard Accessories

CD-ROM* 1
Installation guide 1
Hardware key 1

* CD-ROM includes the install program of the WV-AS710, the operating instructions (PDF) and the Readme.txt. Before installation read the Readme.txt.

■ Trademarks and Registered Trademarks

- Linux is a registered trademark of Linus Torvalds.
- RED HAT is a registered trademark of Red Hat, Inc.
- Java is a trademark or registered trademark of Sun Microsystems, Inc. in the United States and other countries.
- Microsoft, Windows and Windows NT are registered trademarks of Microsoft Corporation in the U.S. and other countries.
- Netscape, Netscape Navigator, Netscape ONE, the Netscape N and Ship's Wheel logos are registered trademarks of Netscape Communications Corporation in the U.S. and other countries. Other Netscape product names used in this document are also trademarks of Netscape Communications Corporation and may be registered outside the U.S.
- Intel and Pentium are trademarks of Intel Corporation.
- IBM and xSeries are registered trademarks of IBM Corporation in the U.S. and/or other countries.
- Other names of companies and products contained in these operating instructions may be trademarks or registered trademarks of their respective owners.
- Distributing, copying, disassembling, reverse compiling, reverse engineering, and also exporting in violation of export laws of the Software provided with this product, is expressly prohibited.

■ Structure of These Operating Instructions

These operating instructions consist of an "Operation" section for general users, and "Installation" and "Administration" sections for administrators of the network camera server. These operating instructions are written on the assumption that users and administrators use Internet Explorer 6.0 SP1 to operate the network camera server. If other browsers are used, the illustrations in these operating instructions may look differently.

"Operation"

This section describes how to access and operate the network camera server from PCs.

"Installation"

This section describes how to install the WV-AS710 on a PC server on which Red Hat Linux 8.0 Professional is installed.

"Administration"

This section describes how to set and administrate the network camera server.

Readers of This Manual

The "Operation" section is written for users who know how to operate a web browser and have general knowledge about the Internet.
The "Installation" and "Administration" sections are written for users who know how to administrate Red Hat Linux 8.0 Professional and the Apache HTTP Server, and who also know how to establish a backbone server.

Terms

Meanings of the terms used in these operating instructions are as follows:
Network camera server: A running PC server on which the WV-AS710 is installed.
Network camera: Cameras that can be directly connected to network such as: WV-NM100, WV-NP472, WV-NS320 and WV-NS324.
Disk space for recorded pictures: Disk space used only for recording which is allocated on a mounted hard disk on the network camera server. (Partition or directory name is /S3_DATAxx.)
PC: A computer on which a Microsoft® Windows® operating system is installed.
Web browser: Software to browse web sites on the Internet (e.g. Netscape Navigator, Internet Explorer, etc.).
Administrator: A user registered in the administrator group.
User: A person who accesses the network camera server using a web browser, and browses camera pictures or operates cameras.
Alarm picture: A picture captured when an alarm occurs.
Red Hat Linux: Red Hat Linux 8.0 Professional.
Windows: Microsoft® Windows® operating system.
Windows 2000: Microsoft® Windows® 2000 Professional or Microsoft® Windows® 2000 Server.
Windows XP: Microsoft® Windows® XP Professional or Microsoft® Windows® XP Home Edition.

Notes:

- Names of buttons are between square brackets (e.g. the [OK] button).
- Names of menus and items on menus are between double quotation marks (e.g. the "System Properties" menu).

Operation

This section describes how to access the network camera server in order to browse camera pictures, operate cameras, and play recorded pictures.

- Access the network camera server using a web browser. If you don't have a recommended web browser, download it from the distributor. Refer to the "Help" menu of the web browser or to the web site of a distributor if you need to learn how to operate the web browser.
- It is required to configure the web browser to accept cookies from the network camera server. If the web browser is configured to "Block All Cookies", set it to "Accept All Cookies". If it is configured to prompt you when a cookie is sent, click the [Allow] button in the displayed dialog window.
- To browse MPEG-4 pictures, the MPEG-4 Plug-in Software is required. This Plug-in Software is only for Internet Explorer 5.5 SP2 and 6.0 SP1.
- To browse downloaded MPEG-4 recorded pictures, the MPEG-4 Player is required.
- To download the MPEG-4 Plug-in Software and the MPEG-4 Player it is required to agree to the License Agreement. In the WV-AS710, 32 licenses are included. Each time the MPEG-4 Plug-in Software or the MPEG-4 Player is downloaded, one license is used.
- When accessing the network camera server with two or more browser windows of a web browser on a PC, pictures may not be displayed correctly.
- To access cameras with an operating restriction, the user is required to be registered for authentication. Refer to an administrator for a user name and a password.
- These operating instructions explain about the HTML documents installed when the WV-AS710 is installed. If the HTML documents are edited, layouts and actions may be changed.

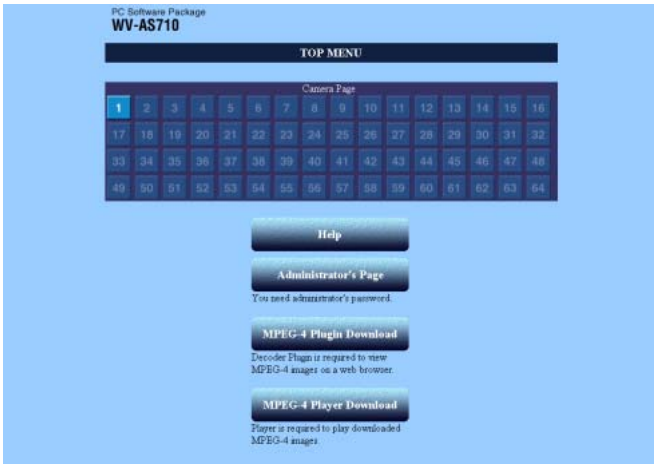
Access to the Network camera server

Perform the following to access the network camera server to browse camera pictures.

1. Start up the web browser and enter one of the following URLs (refer to a system administrator or a network administrator about the URL):

   - Display in English (Date format: Month/Day/Year)
     http:///(address of server)/s3/American/
   - Display in English (Date format: Day/Month/Year)
     http:///(address of server)/s3/British/
   - Display in Japanese
     http:///(address of server)/s3/Japanese/

When an address is entered correctly, the "TOP MENU" will be displayed.


PC Software Package
WV-AS710
TOP MENU
Camera Page
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48
49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64
Help
Administrator's Page
You need administrator's password.
MPEG-4 Plugin Download
Decoder Plugin is required to view MPEG-4 images on a web browser.
MPEG-4 Player Download
Player is required to play downloaded MPEG-4 images.

Note: In these operating instructions, procedures are described on the assumption that the "http:///(address of server)/s3/British/" is entered.

2. To browse camera pictures, click one of the [1] - [64] buttons. When "Live View Only" is selected as the system type of the network camera server, the [1] - [128] buttons are available.
   The buttons for the registered cameras will be available. Click one of the available buttons to display the "Camera Page".

When the authentication dialog window is displayed:
The authentication dialog window will be displayed when "ON" is selected for "Pre-Authentication Mode" on the "System Properties" menu.

Enter a user name and a password, and click the [OK] button.
When authenticated, the "Camera Page" will be displayed.

About "Pre-Authentication Mode"
Users, who have been authenticated when the "Camera Page" is displayed for the first time, do not have to be authenticated subsequently. However, when an authenticated user tries to select or operate a camera that the user is not allowed to access, the authentication dialog window will be displayed.

How to Use the "TOP MENU"

To operate the "TOP MENU" page, refer to the following.

PC Software Package
WV-AS710
TOP MENU
Camera Page
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48
49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64
Help
Administrator's Page
You need administrator's password.
MPEG-4 Plugin Download
Decoder Plugin is required to view MPEG-4 images on a web browser.
MPEG-4 Player Download
Player is required to play downloaded MPEG-4 images

- **"Camera Page" [1] - [64] (when "Live View & Recording" is selected as the "System Type")/[1] - [128] (when "Live View Only" is selected as the "System Type")**
  Camera numbers will be displayed. The available camera numbers are of cameras registered to the network camera server. When an available button is clicked, the picture from the selected camera will be displayed in the selected camera page. The camera number buttons are different depending on the selected system type of the network camera server, as follows:
  "Live View & Recording": [1] - [64]
  "Live View Only": [1] - [128]

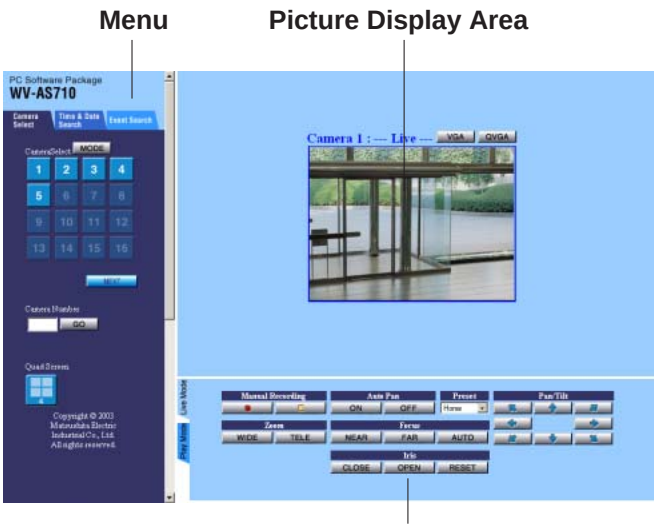
  Notes:
  Live camera pictures will not be displayed even when an available button is clicked, in the following cases.
- When the network camera server stops delivering camera pictures temporarily. (The network camera server stops delivering camera pictures during "Camera Sleep Schedule". Refer to page 51 for further information about "Camera Sleep Schedule".
- When IP addresses of cameras registered to the network camera server are incorrect.
- When a camera registered to the network camera server is not connected.
- When the network camera server cannot acquire camera pictures because of connection trouble, malfunctioning of cameras, etc.
- Even if MPEG-4 Plug-in Software is not installed on a PC, the network camera server will deliver MPEG-4 camera pictures. (In this case, this problem will be solved by downloading MPEG-4 Plug-in Software from the "TOP MENU" page and installing it.)

- **[Help] button**
  Click this button to display the "Help" page.
- **[Administrator's Page] button**
  Click this button to display the "Administrator's Page". Only users registered in the administrator group can display the "Administrator's Page". (The user name and password registered to the administrator group will be required.) Refer to the "Administration" section of these operating instructions. Refer to page 43 for further information.
- **[MPEG-4 Plug-in Download] button**
  Click this button to display the MPEG-4 Plug-in Software download page. The MPEG-4 Plug-in Software is required to browse MPEG-4 live camera pictures using a web browser.
- **[MPEG-4 Player Download] button**
  Click this button to display the MPEG-4 Player download page. The MPEG-4 Player is required to play downloaded MPEG-4 pictures stored on the network camera server.

How to Use the Camera Page

To operate the "Camera Page", refer to the following. To display the "Camera Page", click one of the available camera buttons on the "TOP MENU" page.

Click a tab to change the operation menus.



"Camera Select" tab

Click this tab to display the "Camera Select "menu.

"Time & Date Search" tab

Click this tab to display the "Time & Date Search "menu. Use this menu to search recorded pictures stored in the network camera server by time and date.

"Event Search" tab

Click this tab to display the "Event Search" menu. Use this menu to search recorded pictures stored in the network camera server by detailed conditions.

Picture Display Area

The selected camera picture or playback picture is displayed in this area.

Notes:

Live camera pictures will not be displayed even when an available button is clicked, in the following cases.

- When the network camera server stops delivering camera pictures temporarily. (The network camera server stops delivering camera pictures during "Camera Sleep Schedule". Refer to page 51 for further information about "Camera Sleep Schedule".
- When IP addresses of cameras registered to the network camera server are incorrect.
- When a camera registered to the network camera server is not connected.
- When the network camera server cannot acquire camera pictures because of connection trouble, malfunctioning of cameras, etc.
- Even if MPEG-4 Plug-in Software is not installed on a PC, the network camera server will deliver MPEG-4 camera pictures. (In this case, this problem will be solved by downloading MPEG-4 Plug-in Software from the "TOP MENU" page and installing it.) Refer to page 30 for further information.

"Live Mode"/"Play Mode" panel

"Live Mode" panel

Operate the selected camera with this panel in the following case. Depending on cameras, some of their functions are not available with this panel.

- Recording camera pictures
- Preset function
- Panning, tilting, zooming and scanning
- Adjustment of focus and brightness

"Play Mode" panel

When "Live View & Recording" is selected as the system type of the network camera server, this panel is available. Users can operate this panel to play recorded pictures stored in the network camera server in various ways.

Notes:

- The available functions differ depending on the models of connected cameras, and the image format of pictures delivered by the cameras.
- The "Live Mode" panel will be displayed only when a camera picture is displayed in the single screen. (The "Live Mode" panel is not operable when the quad screen is displayed.)

Camera Selection Menu

Use this menu to monitor live camera pictures. Depending on the setting of the network camera server, up to 4 live camera pictures can be monitored simultaneously.

How to display the camera selection menu

Click the "Camera Select" tab.

[MODE] button

You can display a list of up to four "Camera Select" buttons vertically by clicking the [MODE] button. Clicking the [MODE] button again will display the "Camera Select" buttons in the original form.

"Camera Select" [1] – [64] buttons ("Live View & Recording") /[1] – [128] ("Live View Only")

Click one of the "Camera Select" buttons. The camera picture respective to the clicked button appears in the picture display area.

[NEXT] button

Click this button to display the "Camera Select" buttons for the next sixteen cameras. When the "Camera Select" buttons are displayed in the list form, clicking this button displays the "Camera Select" buttons for the next four cameras.

[PREV] button

Click this button to display the "Camera Select" buttons for the previous sixteen cameras. When the "Camera Select" buttons are displayed in the list form, clicking this button displays the "Camera Select" buttons for the previous four cameras.

[GO] button

Enter the desired camera number in the input box next to this button, and click this button to display the camera picture respective to the entered camera number in the picture display area.

Note: When a camera delivering camera pictures in the MPEG-4 format is selected, the dialog window below may be displayed.

This window will be displayed if the MPEG-4 Plug-in Software is not installed to browse MPEG-4 motion pictures on a web browser. Refer to the "MPEG-4 Plug-in Software Installation" on page 30.

[Quad Screen] Button

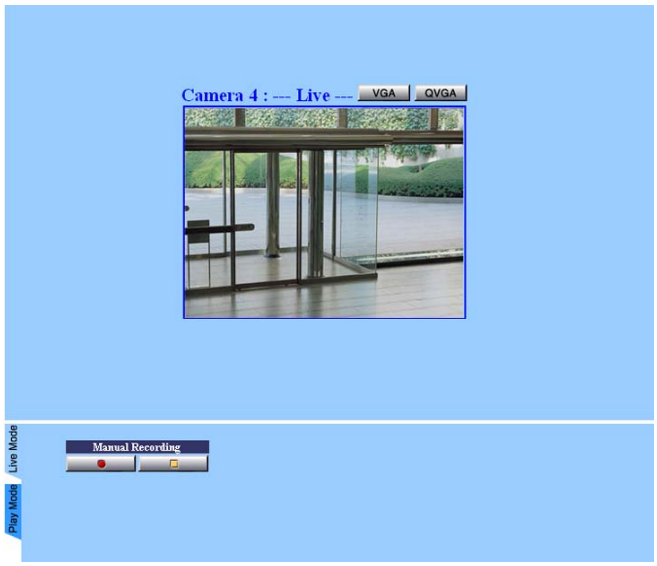
Click this button to change the single screen in the picture display area to the quad screen. Up to four camera pictures are displayed simultaneously. The "Live Mode" panel is not displayed when the quad screen is displayed.

Note: This button appears only when the "Quad Screen Button" of "Monitor Screen Setting" on the "System Properties" menu is set to "ON".

Picture Display Area

The live camera pictures are displayed in the picture display area in the single screen or the quad screen in the "Live Mode". When in the "Play Mode", recorded pictures stored in the network camera server will be displayed in the single screen.

Single Screen ("Live Mode" and "Play Mode")



Quad Screen ("Live Mode" Only)

[VGA]/[CIF] button

Click the [VGA] button to change the screen size to the VGA mode when displaying JPEGs. When the selected camera delivers MPEG-4, click the [CIF] button to change the screen size to CIF mode.

[QVGA]/[QCIF] button

Click the [QVGA] button to change the screen size to the QVGA mode when displaying JPEGs. When the selected camera delivers MPEG-4, click the [QCIF] button to change the screen size to the QCIF mode.

"Camera # (camera number)"

When the camera picture is displayed in the single screen, the camera number of the displayed picture is displayed above the picture.

"TITLE"

When the quad screen is displayed, each picture is displayed with its respective title above. Click the desired camera title to display the desired camera picture in the single screen.

Note: "TITLE" can be edited on the "Camera List" or "Camera Property" menu by an administrator. "TITLE" will not be displayed if it has not been entered.

"Live"/"Play" ("Live View & Recording")

When a live camera picture is displayed in the single screen, "Live" is displayed above the picture. When a recorded picture is displayed in the single screen, "Play" is displayed above the picture.

Note: When the quad screen is displayed, neither "Live" nor "Play" appears.

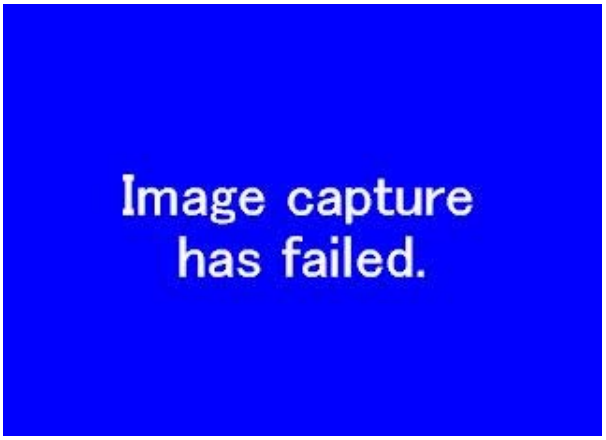
[NEXT] button

This button appears when camera pictures are displayed in the quad screen. Click this button to display the camera pictures for the next four cameras in the quad screen.

[PREV] button

This button appears when camera pictures are displayed in the quad screen. Click this button to display the camera pictures for the previous four cameras in the quad screen.

When failure to acquire a camera picture occurred:
When the network camera server could not acquire a camera picture, the picture below will be displayed.



When the network camera server could not acquire a camera picture, it is possible to send an e-mail to an address registered in advance to notify of this failure. Although access to acquire camera pictures failed, the network camera server retries to acquire pictures periodically. When also retrying to acquire camera picture fails, notification by e-mail will not be made.

"Start"/"Stop"/[DOWNLOAD] button ("Live View & Recording")

When a search result is clicked, the start time of the camera picture currently played will be displayed in the "Start" input box. In the "Stop" input box, the displayed time will be the start time plus 30 minutes. Time to download can be changed by entering the date and time directly in the "Start" input box and in the "Stop" input box.

To download the recorded picture from the "Start" time to the "Stop" time (up to 30 minutes) on a PC, click the [DOWNLOAD] button.

Note: Download time will differ depending on the image format. To download 30 minutes of recorded pictures, approximately 100MB or more of hard disk space is required.

Live Mode Panel

The live mode panel contains the buttons to control the selected camera. (When the quad screen is displayed, this panel is not displayed.) The buttons displayed in the live mode panel differ depending on the model of the selected camera.

How to display the live mode panel

The live mode panel will be displayed by one of the following operations:

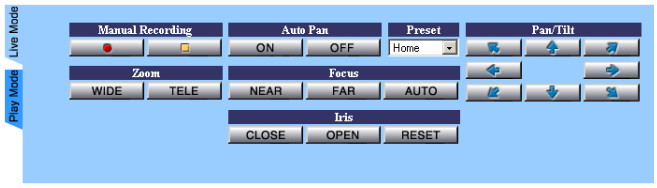
- Clicking one of the "Camera Select" buttons in the camera selection menu.
- Clicking the "Live Mode" tab in the live mode panel.

About the user authentication dialog window:
When a user who is authenticated as a "Monitor" user clicks a button in the live mode panel, the user authentication dialog window will be displayed. In this case, perform the authentication as an "Operator" or as an administrator.

Note: The authentication dialog window will be displayed when a user tries to access a camera which the user is not allowed to access. In this case, cancel the operation or enter a valid user name and password to be allowed to access and operate the selected camera.

About camera control:
It is impossible to operate the camera if another user is currently operating it (it is possible to access the selected camera only to view live pictures.)

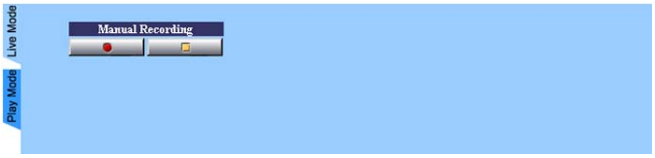
When the selected camera is a WV-NS320, WV-NS324 or a camera connected by the network interface unit WJ-NT104:



Note: The operable buttons will depend on the features of the camera connected by the WJ-NT104.

When the selected camera is a WV-NM100:

When the selected camera is a WV-NP472:



Manual Recording ("Live View & Recording")
Click the [●] button to record the currently monitored camera picture on the hard disk of the network camera server. If the camera picture is recorded in the JPEG format, the camera picture will be recorded at 1 fps (JPEG) until the [■] button is clicked. If the camera picture is recorded in the MPEG-4 format, the camera picture will be recorded at the transmission rate of the camera until the [■] button is clicked. The "Priority" of manual recording is "4" and pictures recorded by manual recording will be stored in the protected disk space.

Notes:
When pictures are recorded in the JPEG format, recording interval may differ as below.

- If a recording whose priority is higher than the manual recording priority (for example, alarm recording (priority: 3) or a schedule recording whose priority is set to "1", "2" or "3" and whose recorded pictures are set to be stored in the protected disk space), is performed during manual recording, pictures will be recorded at the recording interval of the recording whose priority is the highest.

- If manual recording and a recording whose priority is the same as the manual recording (for example, schedule recording whose priority is set to "4" and whose recorded pictures are set to be stored in the protected disk space) are performed, pictures of the recording that started later will be recorded at its recording interval.
- Depending on the setting of "Minimum Access Interval/Maximum Frame Rate", the recording interval will be different from the examples above. Refer to page 63 for further information.

To stop recording, click the [■] button.

Notes:

Manual recording will be stopped in the following cases. It is impossible to stop recording by closing the window of a web browser or by shutting down the web browser.

- When another user accessing the camera while it is recording clicks the [●] button.
- When an administrator stops or restarts the WV-AS710 (Recording will not resume automatically after restart.)

Zoom

Click the [WIDE] button or the [TELE] button to control the zoom lens of the selected camera.

Note: Even if the [WIDE] button or the [TELE] button is kept pressed, the camera will not keep on zooming.

Preset

Select a preset position to move the camera to the selected preset position. Preset position numbers 1 to 64 and home position are available for this function. The available preset position numbers differ depending on the model of the selected camera as below:

A camera connected by the WJ-NT104: 1 to 64
WV-NM100: 1 to 8
WV-NS320, WV-NS324: 1 to 16

Note: The preset function is a function of the camera, not of the network camera server. If the preset position is not set on the camera, this function is not available.

Pan/Tilt

Click this button to move the camera horizontally or vertically. Each click moves the camera horizontally or vertically by one step. The speed of panning and tilting and the range of a step differ depending on the model of the selected camera.

When the selected camera is delivering JPEG:

When one of the edges (top, bottom, left, right) of the camera picture is clicked, the camera pans or tilts toward the clicked direction. (When browsing MPEG-4, panning and tilting by clicking on the camera picture is not possible.) The range of panning and tilting by one click differs depending on the distance between the center point and the clicked point. For example, if you click the right edge, the camera pans widely toward the right side. Tilting is performed in the same way as panning. The camera will not move if the clicked point is just around the center point.

Notes:

- Even if a point on the camera picture or the arrow buttons of "Pan/Tilt" is kept pressed, the camera will not keep on moving.
- Panning and tilting is possible only when one of the following cameras is selected:
  - Camera connected by the network interface unit WJ-NT104
  - WV-NM100
  - WV-NS320, WV-NS324

Auto Pan

Click the [ON] button to start the AUTO functions set on the cameras (AUTO PAN, SEQ, SORT, PATROL and so on). The available functions differ depending on the settings of the cameras. Refer to the operating instructions of the cameras for further information. The way of panning differs depending on the model of the selected camera.

Click the [OFF] button to stop the AUTO functions. Clicking other buttons (except the [●] button or the [■] button of "Manual Recording") also stops the AUTO functions.

Scan

When the [PRESET TOUR] button is clicked, the camera starts touring the preset position number 1 to 8 in numerical order and stops automatically.

When the [ONE TIME PAN] button is clicked, the camera starts panning once to the right end and once to the left end, and then stops automatically.

Focus

Click these buttons to adjust focusing.
Click the [NEAR] button to focus on a closer object.
Click the [FAR] button to focus on a farther object.
Click the [AUTO] button to focus on an object in the center of the displayed picture.
Note: Even if the [NEAR] button or the [FAR] button is kept pressed, the camera will not keep on focusing.

Iris

Click these buttons to adjust the iris. Generally, to shoot images with a clear background or to shoot in bright locations, the iris should be closed.
Click the [OPEN] button to open the iris, so that the depth of field will be shallower.
Click the [CLOSE] button to close the iris, so that the depth of field will be deeper.
Click the [RESET] button to return to the default depth of field.
Note: Even if the [OPEN] button or the [CLOSE] button is kept pressed, the iris will not keep on opening or closing.

Brightness

Click these buttons to adjust the brightness of the camera picture.
Clicking the left side buttons makes the camera picture darker and clicking the right side buttons makes the camera picture brighter.

"Play Mode" tab

Click this tab to switch from the "Live Mode" to the "Play Mode" manually.

Playback of Recorded Pictures

When "Live View & Recording" is selected as the system type of the network camera server, the following recorded pictures will be stored in the allocated disk space of the network camera server.

- Manually recorded camera pictures by clicking the [●] button of "Manual Recording" on the "Live Mode" panel.
- Automatically recorded camera pictures when an alarm occurred at a camera site. (Set by an administrator)
- Automatically recorded camera pictures by the setting of the recording schedule. (Set by an administrator)

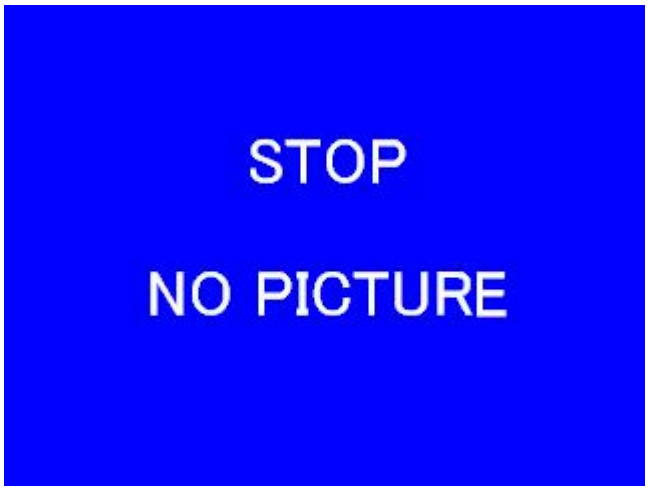
Play recorded pictures stored in the network camera server as follows:

1. **Click the "Time & Date Search" tab or the "Event Search" tab.**
   "Time & Date Search":
   Search recorded pictures saved in the network camera server by designating a camera number, time and date.
   "Event Search":
   Search recorded pictures saved in the network camera server by designating more detailed conditions than in "Time & Date Search".

2. **Enter the conditions for searching recorded pictures, and then click the [SEARCH] button.**
   The search result will be displayed in the main control frame.
   To return to the "Time & Date Search" or the "Event Search" from the results, click the "It returns to a condition input" link text.

3. **Click a link text or a thumbnail from the results.**
   The playback of the recorded picture will start.
   Users can operate buttons on the play mode panel to play recorded pictures.

When playback of the recorded picture finishes, a picture that says "STOP NO PICTURE" will be displayed.
When starting playback without selecting a link text or a thumbnail from the result list of the "Event Search" or "Time & Date Search", the last frame of the latest recorded picture is played, and then the picture that says "STOP NO PICTURE" will be displayed.



About playback of recorded pictures:
Playback of recorded pictures is possible only when "Live View & Recording" is selected as the system type of the network camera server.
When a user who is authenticated as a "Monitor" user clicks a button in the play mode control frame, the user authentication dialog window will be displayed. In this case, perform the authentication as an "Operator" or as an administrator, or click the [Cancel] button in the user authentication dialog window.

Downloading Recorded Picture

It is possible to download the recorded pictures onto a PC by designating the start time and stop time for downloading.

1. **Play a recorded picture and confirm the date and time to download.**

2. **Enter the desired time for the "Start time" and "Stop time".**
   It is possible to download recorded picture of up to 30 minutes. When playback starts, the start time of the recorded picture will be displayed in the "Start time" input box and the "Start time" plus 30 minutes will be displayed in the "Stop time" input box.

3. **Click the [DOWNLOAD] button.**
   Follow the displayed instructions. It will take several minutes for the network camera server to prepare the recorded picture to be downloaded. Do not click any buttons until the network camera server completes preparation.
   When download has been completed, the downloaded file will be saved as a self-extracting executable file (file extension: .exe).
   When pictures delivered from a camera are in the JPEG format, JPEG files and html documents will be downloaded as a self-extracting executable file.
   When pictures delivered from a camera are in the MPEG-4 format, MPEG-4 files (file extension: .mg4) and an index file (file extension: .idx) will be downloaded as a self-extracting executable file.

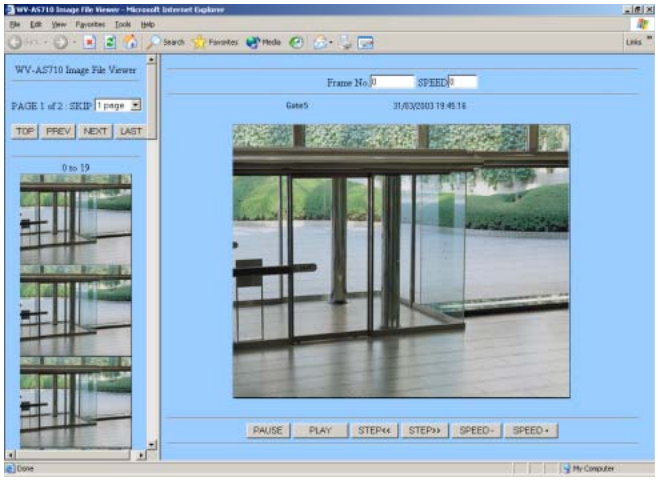
Play Downloaded Recorded Picture

To play the downloaded recorded picture, do the following.

To play JPEG

1. Move the downloaded self-extracting executable file to the desired folder, and then double click it.
   When the downloaded self-extracting file is double clicked, JPEG files (file extension: .jpg) and html documents used as a browser (index.html, thumb html, play.html) will be uncompressed in the selected folder.
   Notes:
   - Browse the uncompressed JPEG files using the uncompressed html document (index.html).
   - When the size of the picture delivered from the camera is 640 x 240 pixels, some image editing software such as "Paint" will display the picture in the half vertical size.

2. Display the index.html using a web browser.
   The web page below will be displayed.



SKIP: Select a number of thumbnail display pages to be skipped.
TOP: Click this button to go back to the top page on the left frame.
PREV: Click this button to display the previous page. The displayed page depends on the selected page number for "SKIP".
NEXT: Click this button to display the next page. The displayed page depends on the selected page number for "SKIP".
LAST: Click this button to go to the last page.
Frame No.: Click this button to display the currently browsed frame number.
SPEED: Click this button to display the playback speed. When playing in reverse, the playback speed will be displayed with a minus (–).
STEP <<: Click this button to go back to a previous frame and pause.
PLAY: Click this button to start playback.
STEP >>: Click this button to go to the next frame and pause.
SPEED –: Click this button to slow down the playback speed one step (–1).
PAUSE: Click this button to pause the playback.
SPEED +: Click this button to speed up the playback speed one step (+1).

To play MPEG-4

To play the downloaded recorded picture in the MPEG-4 format, it is required to install the MPEG-4 Player on the PC in advance.

Note: Downloading the MPEG-4 Player is possible from the "TOP MENU". Refer to the "Installation of the MPEG-4 Player" on page 31.

1. **Move the downloaded self-extracting executable file to the desired folder, and then double click it.**
   When the downloaded self-extracting file is double clicked, MPEG-4 files (file extension: .mg4) and an index file which includes information about the recording time, etc. (file extension: .idx) will be uncompressed in the selected folder.
   Note: Place the MPEG-4 files and the index file in the same folder. If they are placed in different folders, or the index file is deleted, it may be impossible to play the MPEG-4 files.

2. **Start up the MPEG-4 Player.**
   When the MPEG-4 Player is installed, the MPEG-4 Player will be added to the "Start" menu in Windows.
   Except Windows XP: [Programs] - [WV-AS710 MPEG-4 Player] - [WV-AS710 MPEG-4 Player]
   In Windows XP: [All Programs] - [WV-AS710 MPEG-4 Player] - [WV-AS710 MPEG-4 Player]

3. **Select "File" - "Open" from the menu bar, and then select an uncompressed MPEG-4 file to open it.**

   File Menu
   Open: Select an MPEG-4 file to be played.
   Close: Quit the MPEG-4 Player.
   Help Menu
   About: Displays the MPEG-4 Player version.
   Slider: Move this slider to the desired point of playback using the mouse.
   Pause: Pauses the playback. Click this button again to resume the playback.
   Play: Starts the playback.
   Stop: Stops the playback.

Searching Menu

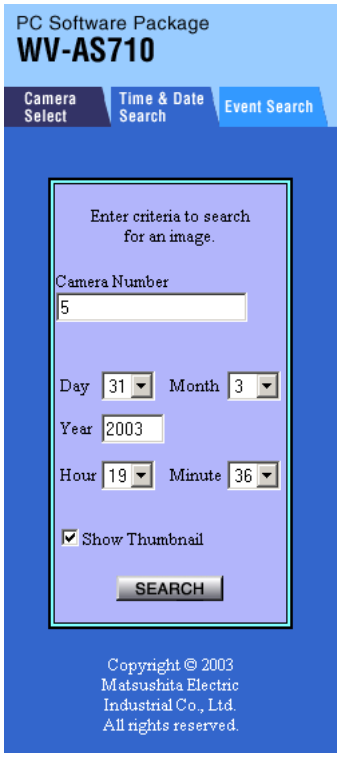
"Time & Date Search"

Search recorded pictures saved in the network camera server by designating a camera number, date and time.

How to display the "Time & Date Search"

Click the "Time & Date Search" tab.

Note: The authentication dialog window will be displayed when a user tries to access a camera which the user is not allowed to access. In this case, cancel the operation or enter a valid user name and password to be allowed to access and operate the selected camera.



Camera Number

Enter the desired camera number whose pictures are to be searched in this input box. When it is required to enter two or more camera numbers, insert a comma (,) between the camera numbers. When the pictures of all cameras are to be searched , enter an asterisk (*).

Note: When a camera number without disk space allocation for recorded pictures, or a camera number that the user is not allowed to access is entered, an error message will be displayed.

Month/Day

Select the month and day to be searched .

Year

Enter the year to be searched in this input box with 4 digits. An error message will be displayed if the [SEARCH] button is clicked when this input box is blank.

Hour/Minute

Select the hour and minute to be searched .

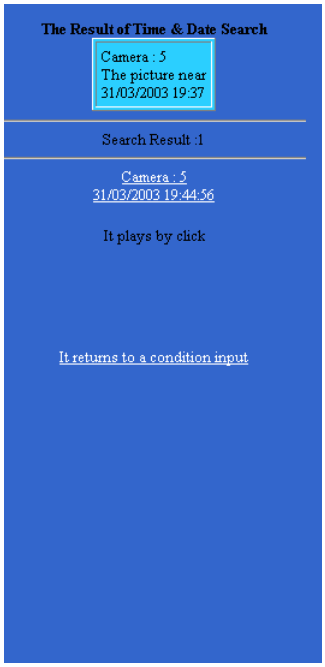
Show Thumbnail

Check this box to display a list of results with the respective pictures in small scale. The MPEG-4 recorded pictures will not be displayed with the thumbnail in the list of results.

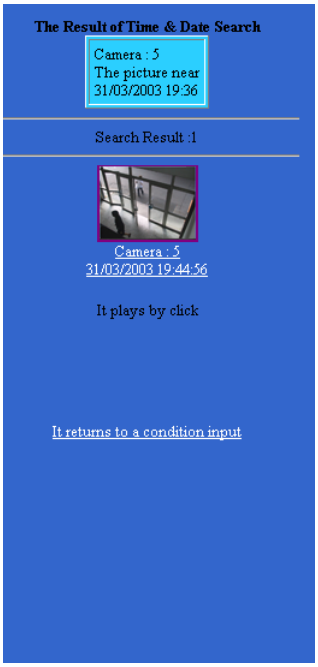
[SEARCH] button

Click this button to start searching.
A list of pictures recorded near the entered time and date will be displayed as results.

Result List (Text)


The Result of Time & Date Search
Camera : 5
The picture near 31/03/2003 19:37
Search Result :1
Camera : 5
31/03/2003 19:44:56
It plays by click
It returns to a condition input

Result List (Thumbnail)


The Result of Time & Date Search
Camera : 5
The picture near 31/03/2003 19:36
Search Result :1
Camera : 5
31/03/2003 19:44:56
It plays by click
It returns to a condition input

Click the desired result. The selected recorded picture will be played from the point of time and date entered for search.

Notes:

- When the time on the clocks of the network camera server and the PC do not match, searches will not be performed correctly.
- When pictures are recorded in the MPEG-4 format, the dialog window below may be displayed.

This window will be displayed if the MPEG-4 Plug-in Software is not installed to browse MPEG-4 motion pictures on the web browser. Refer to the "MPEG-4 Plug-in Software Installation" on page 30.

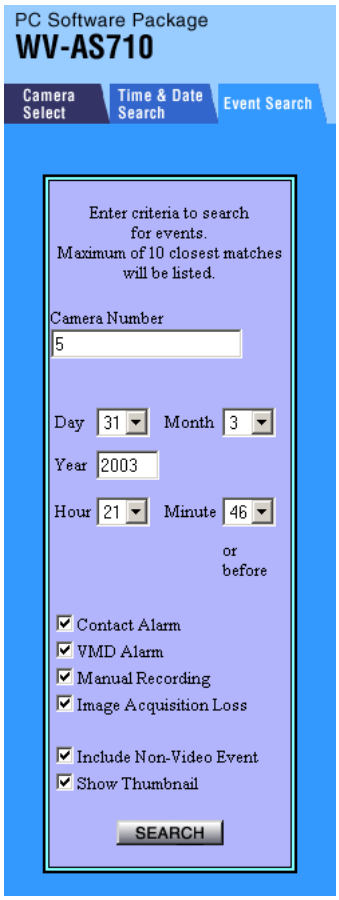
"Event Search"

Search recorded pictures saved in the network camera server by more detailed criteria than in "Time & Date Search".

How to display the "Event Search"

Click the "Event Search" tab.

Note: The authentication dialog window will be displayed when a user tries to access a camera which the user is not allowed to access. In this case, cancel the operation or enter a valid user name and password to be allowed to access and operate the selected camera.



Camera Number

Enter the desired camera number whose pictures are to be searched in this input box. When it is required to enter two or more camera numbers, insert a comma (,) between the camera numbers. When the pictures of all cameras are to be searched, enter an asterisk (*).

Note: When a camera number without disk space allocation for recorded pictures, or a camera number that the user is not allowed to access is entered, an error message will be displayed.

Month/Day

Select the month and day to be searched.

Year

Enter the year to be searched in this input box with 4 digits. An error message will be displayed if the [SEARCH] button is clicked when this input box is blank.

Hour/Minute

Select the hour and minute to be searched.

Contact Alarm

Check this box to search camera pictures recorded when an alarm occurred at a camera site.

VMD Alarm

Check this box to search camera pictures recorded when motion was detected by the video motion detection function of cameras.

Manual Recording

Check this box to search camera pictures recorded manually using "Manual Recording" on the "Live Mode" panel.

Image Acquisition Loss

Check this box to search events including events in which camera pictures were not sent because of connection trouble, network trouble, malfunctioning of devices, etc.

Include Non-Video Event

Check this box to search all events near the entered time and date, even events whose recorded pictures have already been deleted from the network camera server, or events without recordings such as an image acquisition loss.

Show Thumbnail

Check this box to display a list of results with the respective pictures in small scale. The MPEG-4 recorded pictures will not be displayed with the thumbnail in the list of results.

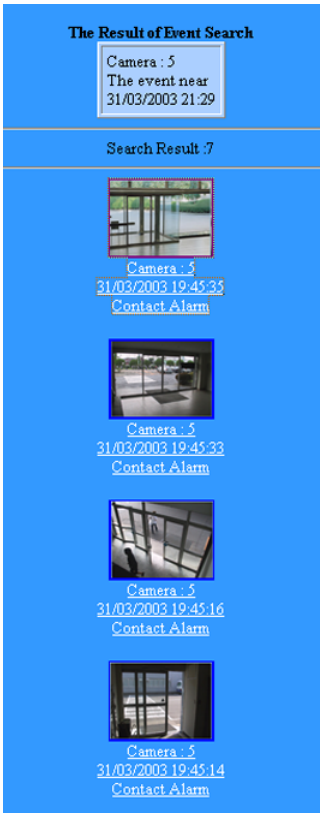
[SEARCH] button

Click this button to start searching.

A list of up to ten pictures recorded near the entered time and date will be displayed as results.

Result List (Text)

Result List (Thumbnail)



Click the desired event.
The selected recorded picture will be played from the point of the entered time and date.
Events in which the respective recorded picture has already been deleted, and events of "Image Acquisition Loss" will not be played, since they do not have any recorded picture.

Notes:

- When the time on the clocks of the network camera server and the PC do not match, searches will not be performed correctly.
- When pictures are recorded in the MPEG-4 format, the dialog window below may be displayed.

This window will be displayed if the MPEG-4 Plug-in Software is not installed to browse MPEG-4 motion pictures on the web browser. Refer to the "MPEG-4 Plug-in Software Installation" on page 30.

Play Mode Panel

The play mode panel contains the buttons to play recorded pictures in various ways.

How to Display the Play Mode Panel

The play mode panel will be displayed when the desired recorded picture in the search results is clicked, or when the "Play Mode" tab is clicked.

Note: The authentication dialog window will be displayed when a user tries to access a camera which the user is not allowed to access. In this case, cancel the operation or enter a valid user name and password to be allowed to access and operate the selected camera.

Play Mode Panel (JPEG):

Play Mode Panel (MPEG-4):

To Latest
Click this button to go to the latest picture of all recorded pictures in the network camera server.

To Oldest
Click this button to go to the oldest picture of all recorded pictures in the network camera server.

Fast Reverse Play (only for JPEG)
Click this button to play recorded pictures in reverse at high-speed.

Slow Reverse Play (only for JPEG)
Click this button to play recorded pictures in reverse at slow speed.

Reverse Play (only for JPEG)
Click this button to play recorded pictures in reverse at the same speed rate as the recording speed rate. For example, if the recording time is 30 seconds, also the "Reverse Play" time is 30 seconds.
Note: Depending on the network environment, drop frame may occur. Therefore, it may be impossible to play all frames.

Play
Click this button to play recorded pictures at the same speed rate as the recording speed rate. For example, if the recording time is 30 seconds, also the "Play" time is 30 seconds.
Note: Depending on the network environment, drop frame may occur. Therefore, it may be impossible to play all frames.

Slow Play
Click this button to play recorded pictures at slow speed.

Fast Play (only for JPEG)
Click this button to play recorded pictures at high-speed.

Reverse Play All Frames (only for JPEG)
Click this button to play all frames of recorded pictures in reverse. Frames are played in 0.2 seconds intervals. Playback will take longer than when clicking the [Reverse Play] button.
Note: Depending on the network environment, it may take long to play all frames.

Previous Frame (only for JPEG)
Click this button to display the previous frame. This button works only when the currently displayed recorded picture is paused.

Next Frame (only for JPEG)
Click this button to display the next frame. This button works only when the currently displayed recorded picture is paused.

Pause
Click this button to pause playback. To stop pausing, click this button again. When pausing is stopped, the recorded picture will resume being played in the same way as before the recorded picture was paused by clicking this button. For example, after clicking this button to pause playback during "Reverse Play", the playback of the recorded picture will start again in "Reverse Play" by clicking this button again.

Play All Frames (only for JPEG)

Click this button to play all frames of recorded pictures. Frames are played in 0.2 seconds intervals.

Note: Depending on the network environment, it may take a longer time to play.

Back Skip (only for MPEG-4)

Click this button to go back around 3 seconds and pause the playback.

Live Mode

Click this tab to switch from the play mode to the live mode manually.

Note: When pictures are recorded in the MPEG-4 format, the dialog window below may be displayed.

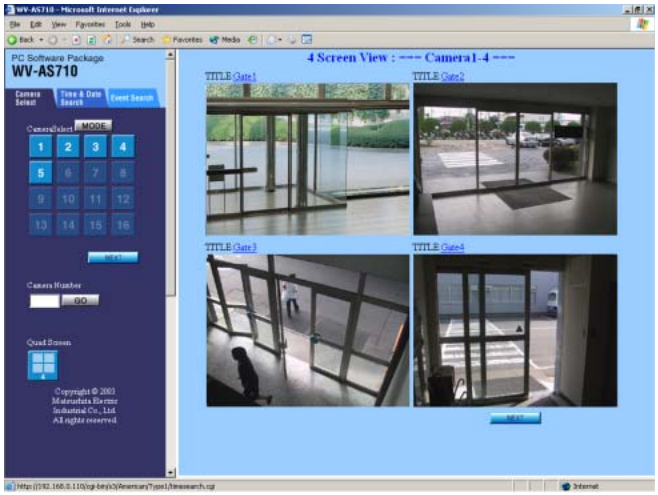
This window will be displayed if the MPEG-4 Plug-in Software is not installed to browse MPEG-4 motion pictures on the web browser. Refer to the "MPEG-4 Plug-in Software Installation" on page 30.

Quad Screen

When the [Quad Screen] button is clicked, the quad screen (pictures from four cameras) is displayed in the picture display area. When the quad screen is displayed in the picture display area, neither manual recording nor operating the camera are available since the camera control frame is not displayed.

Notes

- To display the quad screen, an administrator should set the "Quad Screen Button" of "Monitor Screen Setting" on the "System Properties" menu to "ON". Refer to page 74 for further information about the "System Properties" menu.
- When the quad screen is displayed, the network camera server regards it as if four users are currently accessing it, because four cameras are accessed simultaneously.



"TITLE"

When the quad screen is displayed, each picture is displayed with its respective title above. Click the desired camera title to display the desired camera picture in the single screen.

[PREV/NEXT] buttons

When the quad screen is displayed, the [PREV] button and the [NEXT] button appear below the quad screen.

When the [PREV] button is clicked, the previous four camera pictures will be displayed.

When the [NEXT] button is clicked, the next four camera pictures will be displayed.

Note: If there is no connected camera for the selected number, a blue picture or an icon indicating a missing picture will be displayed.

Installation of the MPEG-4 Plug-in Software

To view live pictures or play recorded pictures in the MPEG-4 format, it is required to install the MPEG-4 Plug-in Software on the PC.

Notes:

- Confirm your PC fulfills the system requirements before installing the MPEG-4 Plug-in Software. Refer to page 7 for further information.
- The MPEG-4 Plug-in Software is not compatible with Windows NT.
- Install or uninstall the MPEG-4 Plug-in Software after logging on to the PC as an administrator (Administrator: Windows 2000, Computer Administrator: Windows XP).

How to Install

To install the MPEG-4 Plug-in Software, do the following.

1. **Display the "TOP MENU" of the network camera server.**
   http://(server address)/s3/British
   The server address differs depending on the user environment.

2. **Click the [MPEG-4 Plugin Download] button.**
   Follow the displayed instructions to download the installer (Setup.exe).

3. **Double click the installer (Setup.exe) to start installation.**
   The installer will start up. Follow the displayed instructions to complete installation.

How to Uninstall

To uninstall the MPEG-4 Plug-in Software, do the following.

Except Windows XP

1. **Open the control panel. ([Start] - [Settings] - [Control Panel])**
   The control panel will be opened.

2. **Double click the [Add/Delete Application].**

3. **Select [MPEG-4 Viewer Software] and click [Change/Remove].**

4. **Follow the displayed instructions to complete uninstall.**

In Windows XP

1. **Open the control panel. ([Start] - [Control Panel])**
   The control panel will be opened.

2. **Double click the [Add/Delete Application].**

3. **Select [MPEG-4 Viewer Software] and click [Change/Remove].**

4. **Follow the displayed instructions to complete uninstall.**

Installation of the MPEG-4 Player

To play downloaded recorded pictures in the MPEG-4 format, it is required to install the MPEG-4 Player on the PC.
Notes:

- Confirm your PC fulfills the system requirements before installing the MPEG-4 Player. Refer to page 7 for further information.
- The MPEG-4 Player is not compatible with Windows NT.
- Install or uninstall the MPEG-4 Player after logging on to the PC as an administrator (Administrator: Windows 2000, Computer Administrator: Windows XP).

How to Install

To install the MPEG-4 Player, do the following.

1. **Display the "TOP MENU" of the network camera server.**
   http://(server address)/s3/British
   The server address differs depending on the user environment.

2. **Click the [MPEG-4 Player Download] button.**
   Follow the displayed instructions to download the installer (Setup.exe).

3. **Double click the installer (Setup.exe) to start installation.**
   The installer will start up. Follow the displayed instructions to complete installation.
   When the MPEG-4 Player has been installed, the MPEG-4 Player will be added to the "Start" menu in Windows.
   Except Windows XP: [Programs] - [WV-AS710 MPEG-4 Player] - [WV-AS710 MPEG-4 Player]
   In Windows XP: [All Programs] - [WV-AS710 MPEG-4 Player] - [WV-AS710 MPEG-4 Player]

How to Uninstall

To uninstall the MPEG-4 Player, do the following.

Except Windows XP

1. **Open the control panel. ([Start] - [Settings] - [Control Panel])**
   The control panel will be opened.

2. **Double click the [Add/Delete Application].**

3. **Select [WV-AS710 MPEG-4 Player] and click [Change/Remove].**

4. **Follow the displayed instructions to complete uninstall.**

In Windows XP

1. **Open the control panel. ([Start] - [Control Panel])**
   The control panel will be opened.

2. **Double click the [Add/Delete Application].**

3. **Select [MPEG-4 Viewer Software] and click [Change/Remove].**

4. **Follow the displayed instructions to complete uninstall.**

Installation

To install the WV-AS710, adequate knowledge of Red Hat Linux is required. Also, adequate knowledge of Apache HTTP Server will be required to access the network camera server from a network.

Note: Installation of the WV-AS710 on the Red Hat Linux server, allocation of disk space for recorded pictures, and uninstallation of the WV-AS710 must be performed by a root user.

Procedures to Establish the Network Camera Server

To use the network camera server, perform the following.

1. **Selection of the system type of the network camera server**

2. **Confirmation of the directory structure**

3. **Installation of Red Hat Linux**

4. **Allocation of disk space for recorded pictures (when "Live View & Recording" is selected)**

5. **Installation of the WV-AS710 (Execution of the installation script)**

6. **Startup of the WV-AS710**

7. **System environment setting**
   Before running the network camera server, access the "Administrator's Page" and set the system environment. Refer to the "Administration" section on page 43.

8. **Running of the network camera server**
   After setting the system environment, restart the WV-AS710. The settings will be validated and the network camera server will start running.

Selection of the System Type

Depending on the system type, the network camera server works in different ways.

System Type	Description
Live View & Recording	Delivery of live camera pictures and recording can be performed. (Allocation of disk space for recorded pictures is required on the server.) Recorded pictures can be searched for and played when desired, and they can be downloaded on a user's PC hard disk.
Live View Only	Only delivery of live camera pictures is available with this system type. Recording, playback, searching and the alarm function are not available with this system type.

Note: The system type can be changed anytime if required. In case of switching from the "Live View Only" to the "Live View & Recording", allocation of disk space for recorded pictures will be required.

Design a system fulfilling all of the conditions below to run the network camera server in each system type.

	Items	Live View & Recording	Live View Only
Camera Site	Maximum camera number	64	128*1
	Maximum total bit rate	15Mbps	30Mbps
	Maximum total frame rate	200fps	200fps
User Site (Live)	Maximum concurrent access	100	200
	Maximum total bit rate	30Mbps	30Mbps
	Maximum total frame rate	200fps	200fps
User Site (Playback)	Maximum concurrent access	64	-
	Maximum total bit rate	15Mbps	-
	Maximum total frame rate	200fps	-
User Site (Live & Playback)*2	Maximum concurrent access	100	-
	Maximum total bit rate	30Mbps	-
	Maximum total frame rate	200fps	-

*1 To connect 128 cameras, it is required to set the maximum bit rate at less than 230kbps and the maximum frame rate at less than 1.5fps per a camera in the camera settings.
Refer to the following values for the maximum frame rate of cameras.
The following values may differ depending on objects to be captured and the network environment. Also, depending on the traffic on the network, acquiring pictures at the maximum frame rate may fail.

Size of a JPEG (QVGA): Approx.15 - 22 KB
Maximum frame rate of WJ-NT104: 5fps (Settings of WJ-NT104: JPEG, Fixed Input Selection Mode, no limitation for maximum bit rate, QVGA).
Maximum frame rate of WJ-NM100 (MPEG-4): 30fps (Settings of WV-NM100: bit rate of 256kbps or more, QCIF).

*2 In the case where the user site obtains 64 accesses for playback, up to 36 accesses for viewing live pictures are available.

Confirmation of the Directory Structure

The network camera server uses the following directories. Disk space for recording pictures should be allocated by an administrator. (Refer to page 36.) The other directories below are created automatically when the WV-AS710 is installed.

Notes:

- The path of the directory to store the html documents and the CGI files will depend on the user environment.
- Do not change the directory name.
- Do not delete the files installed in each directory or change their names.

Directory name	Description
/usr/local/s3/bin/	Executable files of the network camera server will be stored in this directory. When the installation script is executed, this directory will be automatically created.
/usr/local/s3/	Setting files of the network camera server will be stored in this directory. When the installation script is executed, this directory will be automatically created.
$HTMLPath/s3/	HTML documents will be stored in this directory. When the installation script is executed, this directory will be automatically created.
$CGIPath/s3/	CGI files to be used for administration will be stored in this directory. When the installation script is executed, this directory will be automatically created.
/var/run/	Process ID files will be created in this directory. When the installation script is executed, this directory will be automatically created.
/var/log/s3/	Log files such as an alarm log file and an access log file will be created in this directory. When the installation script is executed, this directory will be automatically created.
/var/s3/etc/	Administration information of the disk space for recorded pictures will be stored in this directory. When the installation script is executed, this directory will be automatically created.
/var/lib/mysql/	The database will be stored in this directory. This directory will be used by the database server.
/S3_DATAxx/	When "Live View & Recording" is selected for the system type, this directory will be required (xx: two digits number (e.g. /S3_DATA00/, /S3_DATA01/, etc.)). The network camera server will use this as the disk space for recorded pictures. It is required to allocate disk space for this as a partition when installing Red Hat Linux. To allocate disk space for this after installing Red Hat Linux, an administrator has to allocate disk space for this manually. It is possible to use up to 16 disks for this directory. Refer to the page 36 for further information.

Installation of Red Hat Linux

When installing Red Hat Linux, take notice of the following.

About Disk Space for Recorded Pictures (When "Live View & Recording" is Selected)

When "Live View & Recording" is selected as the system type, allocation of disk space for recorded pictures will be required.
To allocate disk space for recorded pictures when installing Red Hat Linux, use the following mount name.
/S3_DATAxx (xx: 2 digit number)

Refer to page 36 for further information.

When it is required to allocate or add disk space after installing Red Hat Linux, use the name above as the mount name.

Cautions when Installing Red Hat Linux

It is recommended to install all the packages when selecting package groups during the installation of Red Hat Linux. Selecting all packages using "Custom Install" can install all the packages included in Red Hat Linux.

The following packages are required to run the network camera server.

- Desktop Environment
- Graphical Internet
- Text-based Internet
- Server Configuration Tools
- Web Server
- Mail Server
- DNS Name Server
- SQL Database Server (Click "Detail" to add "mysql-server".)
- Network Server
- Administration Tools

Access the address below after completing installation, and download and install an upgrade file to upgrade MYSQL to the latest version. The address below is subject to change without notice.

https://rhn.redhat.com/errata/rh8-errata.html

Allocation of Disk Space (When "Live View & Recording" is Selected)

To allocate disk space for recorded pictures, refer to the following.

About Disk Space for Recorded Pictures

When the network camera server runs on the "Live View & Recording" system, it is required to allocate disk space for recorded pictures. The following functions will be available by allocating disk space for recorded pictures.

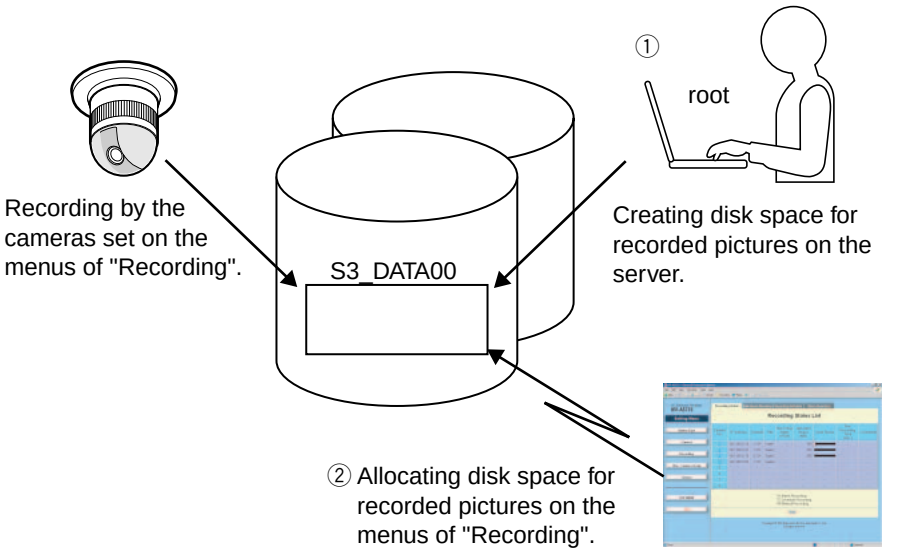
- Schedule recording
- Alarm recording
- Manual recording

Note: When the network camera server runs on a "Live View Only" system, allocating disk space for recorded pictures is not necessary.

Cautions When Allocating Disk Space

Depending on the place the disk space for recorded pictures has been allocated, the performance of the network camera server may deteriorate. To prevent deterioration of the performance, refer to the following:

- It is recommended to prepare a hard disk exclusively for recorded pictures, and to create a new partition as the disk space for recorded pictures.
- If data which is not recorded pictures is stored in the partition created as disk space for recorded pictures, the performance of the network camera server may deteriorate.
- After allocating disk space for recorded pictures, allocate disk space for recorded pictures of each camera in the "Administrator's Page".


①
root
Recording by the cameras set on the menus of "Recording".
S3_DATA00
Creating disk space for recorded pictures on the server.
② Allocating disk space for recorded pictures on the menus of "Recording".
③ Setting cameras for recording on the menus of "Recording".

How to Allocate Disk Space

There are two following ways to allocate disk space.

- Use a whole partition as disk space for recorded pictures.
- Use a directory as disk space for recorded pictures.

Creating a New Partition to Use as Disk Space for Recorded Pictures

When preparing a new hard disk or creating a new partition on a currently used hard disk, the new partition must be the following name to mount. It is possible to create this partition when installing Red Hat Linux.

"/S3_DATAxx" xx: two digits number (e.g. /S3_DATA00, /S3_DATA01, etc.)

Notes:

- When a new hard disk is prepared exclusively for recorded pictures, do not create any other partition than "/S3_DATAxx".
- Do not install any other software in the "/S3_DATAxx" partition.
- Select "ext2" for the file system. If "ext3" or other file systems are selected, the performance of the network camera server may deteriorate.
- The network camera server will not recognize a partition if its name is not "/S3_DATAxx".

Using an Existing Partition as Disk Space for Recorded Pictures

It is possible to create a new directory on an existing partition to use as disk space for recorded pictures. In this case, proceed as follows:

1. **Create a directory in the existing partition and name the new directory "/S3_DATAxx" with the "mkdir" command.**
   Note: The network camera server will not recognize a directory if its name is not "/S3_DATAxx".

2. **Set a symbolic link for the created directory to be recognized as "/S3_DATAxx".**

Example

If the "S3_DATA02" directory is created in the "/mnt2" partition, enter the following to set a symbolic link for the "S3_DATA02" directory.

```
#mkdir  /mnt2/S3_DATA02/
#ln -s  /mnt2/S3_DATA02  /
```

Installation of the WV-AS710

To install the WV-AS710, do the followings.

Mounting the CD-ROM

Insert the CD-ROM that includes the WV-AS710 into the CD-ROM drive. Enter the following commands to mount the CD-ROM and change the current directory to the CD-ROM.

```
#mount  /mnt/cdrom
#cd  /mnt/cdrom
```

Execution of the Installation Script (Installation by Unpacking the Archive Files)

Unpack the archive files in the mounted CD-ROM, and install the files.

1. **Start up the installation script in the mounted CD-ROM.**

```
#./s3inst
```

2. **Enter the environment parameter.**
   When the installation script is executed, the WV-AS710 requests the environment parameters required for start-up.
   - To install not in the default path of Red Hat Linux, enter a desired path and press the return key.
   - To install in the default path of Red Hat Linux (displayed path between [ ]), do not enter any path and press the return key.
   - Enter "American" or "British" for the "Standard Language".

3. **Enter a password for an administrator (admin).**
   The entered string of characters will be a password for an administrator who administrates the network camera server.
   Enter the password (of more than 5 characters) to administrate the network camera server and press the return key.
   Entering the password will be required twice.
   When the entered passwords do not match, execution of the installation script will be interrupted. When interrupted, begin this procedure from step 1 again.

4. **Decide whether or not to start up the WV-AS710 automatically when the server on which Red Hat Linux is installed starts up.**
   - To start up automatically, enter "y". When "y" is entered, the automatic startup script will be added to "/etc/rc.d/rc.local".
   - To not start up automatically, enter "n". In this case, start up the WV-AS710 manually.

5. **Confirm the entered parameters.**
   When entering the parameters has been completed, a confirmation message will be displayed. To install after confirming the displayed parameters, enter "y"
   To change the displayed parameters, enter "n". When "n" is entered, execution of the installation script will be interrupted. In this case, begin this procedure from step 1 again.

6. **Create disk space for recorded pictures.**
   When disk space for recorded pictures is not prepared in advance, a message asking whether to create or not disk space for recorded pictures on an existing partition will be displayed. When "Live View & Recording" will be selected as the system type and it will be required to create disk space for recorded pictures, enter "y". When it is unnecessary to create disk space or when adding disk space later (for example, installing a new hard disk later), enter "n".

Unmounting the CD-ROM

When the installation of the WV-AS710 on Red Hat Linux has been completed, enter the following commands to unmount the CD-ROM.

```
#cd  /
#umount  /mnt/cdrom
```

Starting up the Network Camera Server

Installation of the Hardware Key

The WV-AS710 will not be started up if the provided hardware key is not installed on the PC server.
Before starting up the WV-AS710, insert the provided hardware key into a USB port on the PC server.
It is also possible to insert the hardware key into a USB hub connected to the PC server.

Start up from the "Administrator's Page"

After the installation of the WV-AS710, the first startup of the WV-AS710 can be made using the "Administrator's Page".
To display the "Administrator's Page", click the [Administrator's Page] button on the "TOP MENU" page.

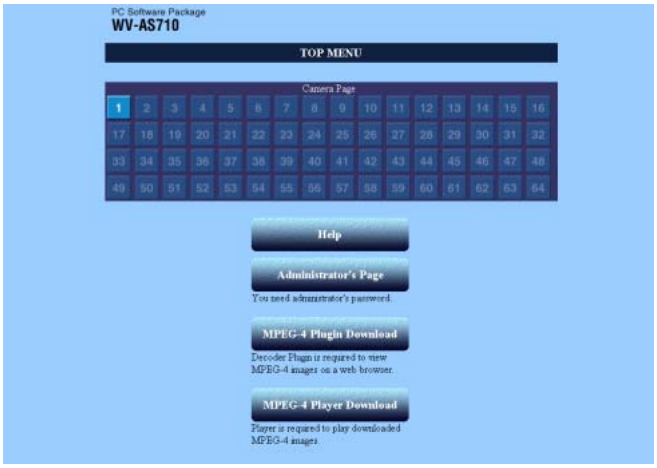
"TOP MENU" page address:	http://(server address)/s3/American/
	http://(server address)/s3/British/

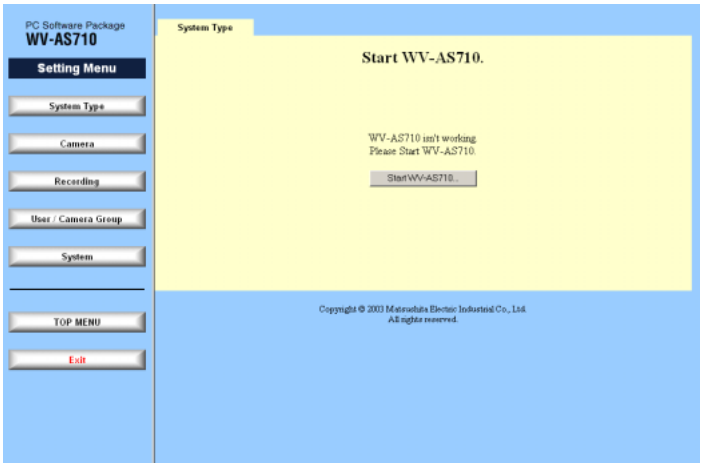
The server address differs depending on the user environment.

When the authentication dialog window is displayed, enter "admin" for user name and the password entered when installing the WV-AS710.

Installation

When the network camera server has not yet started up, the server start confirmation page will be displayed.
Click the [Start WV-AS710] button to start up the WV-AS710.





Start up from Red Hat Linux
Execute "s3" in the directory where the WV-AS710 is installed.
When the WV-AS710 is installed in the default path, it has been installed in "/usr/local/s3/bin/".

```
#/usr/local/s3/bin/s3
```

Notes:

- Executing "s3" is not necessary if "Start WV-AS710 automatically when starting Linux" is selected when the WV-AS710 is installed, and the server is restarted.
- When the automatic startup of the WV-AS710 or the manual restart of the WV-AS710 by an administrator is performed, the WV-AS710 will start running in the background. Therefore, nothing will be displayed in the terminal window.

The Settings of the Network Camera Server Just after Completing the Installation are as Follows:

Item	Parameter
System Type	Live View & Recording
Camera	A single camera
IP address of the camera	192.168.0.10
Camera group	None
Channel of the connected camera	1ch of WJ-NT104
Disk space	Not allocated
Access mode	Continuous
User	"admin" only
Password	Password entered when installing the WV-AS710
Schedule	None
Alarm function	None

After the Installation of the WV-AS710

To run the network camera server after installation, do the following.

E-Mail System Establishment

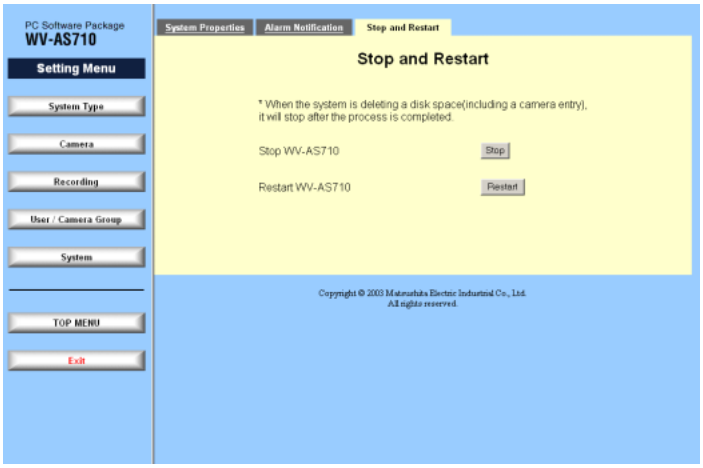
The network camera server can send e-mail to registered e-mail addresses when an alarm occurs.
To use this function, establishment of a mail server system is required. Refer to the operating instructions of the mail server software for further information.

Environment Settings of the Network Camera Server

Refer to the "Administration" section on page 43 for further information about the environment settings.

Stop the WV-AS710

To stop the WV-AS710, click the [Stop] button on the "Stop and Restart" menu. Refer to page 79 for further information.



Uninstallation

When uninstallation of the WV-AS710 is needed, execute the script for uninstallation.
When the script for uninstallation is executed, all directories created when the WV-AS710 was installed will be deleted, except the newly created partitions or directories for disk space named "S3_DATAxx" (their contents will be deleted.).

Note: The uninstallation of the WV-AS710 must be performed by a root user.

The script for uninstallation was installed in the following directory when the WV-AS710 was installed.

/usr/local/s3/bin/uninstall/

To uninstall the WV-AS710, enter the following commands.

```
#cd  /usr/local/s3/bin/uninstall/
#./s3uninst
```

Administration

To run the network camera server, it is required to access the "Administrator's Page" to perform the settings. Refer to this chapter on how to access the "Administrator's Page", and the settings required to be set.

How to Display the "Administrator's Page"

1. **Start up the web browser and display the "TOP MENU" of the network camera server.**

   http://(server address)/s3/British/
   The server address differs depending on the user environment.

2. **Click the [Administrator's Page] button.**
   The authentication dialog window will be displayed.

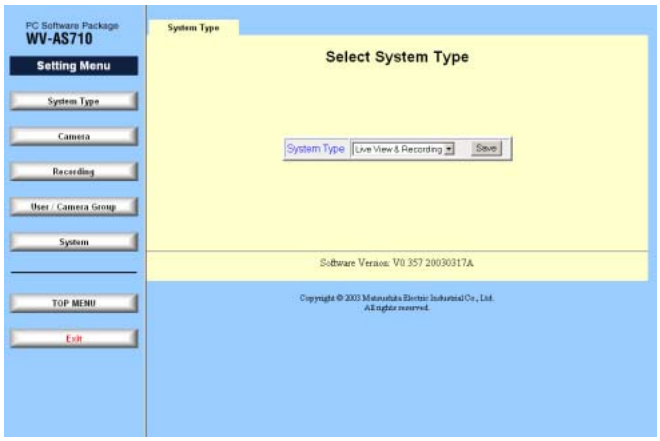
   The "Administrator's Page" can be displayed by entering the following address. In this case, the authentication dialog window will also be displayed.

   http://(server address)/s3/British/cfg

   Note: To perform the settings of the network camera server, use Internet Explorer 5.5 SP2 or 6.0 SP1. If other browsers are used, the settings cannot be performed correctly.

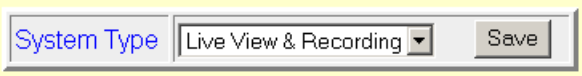
3. **Enter a user name and a password, and then click the [OK] button.**
   User name: Enter the user name belonging to the "admin" group.
   Password: Enter the password corresponding to the entered user name.
   Just after installation, only the user name "admin" is registered in the "admin" group. The password for the user name "admin" is the password entered when installing the WV-AS710.

   When the user is authenticated, the "Administrator's Page" will be displayed.

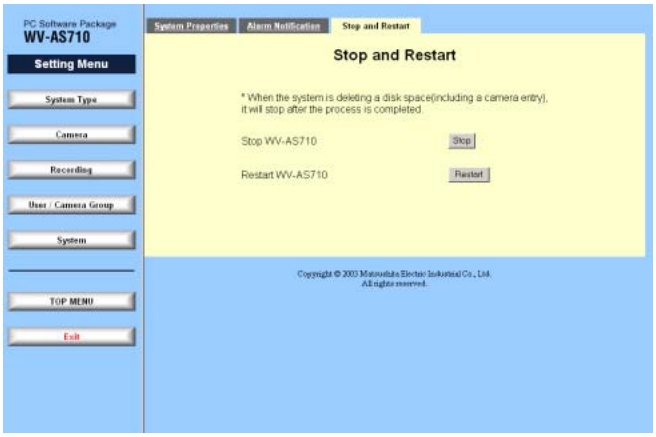


4. **Click the desired button in the "Setting Menu".**
   Some types of "Setting Menu" have two or more tabs. Click the desired tab to display the menu to be set.

5. **Click the [Save] or [Save...] button on each menu page to save the changed settings.**
   A dialog window for confirmation will be displayed. Follow the displayed instructions to complete the settings.

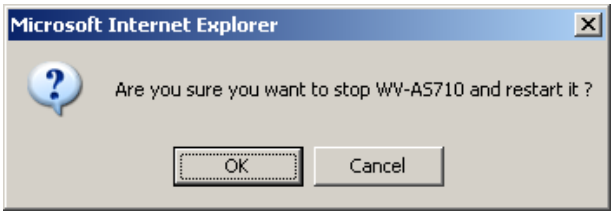


6. **To stop or restart the WV-AS710, display the "Stop and Restart" menu. ([System] button–[Stop and Restart] tab)**

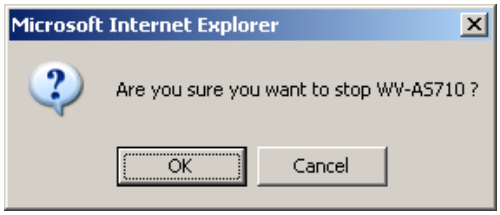


7. **Click the [Restart] button to restart, or the [Stop] button to stop the WV-AS710.**
   A dialog window for confirmation will be displayed.

When the [Restart] button is clicked



When the [Stop] button is clicked



Click one of the following buttons in the dialog window.
OK: To stop or restart the WV-AS710.
Cancel: To go back to the "Stop and Restart" menu.

List of Settings

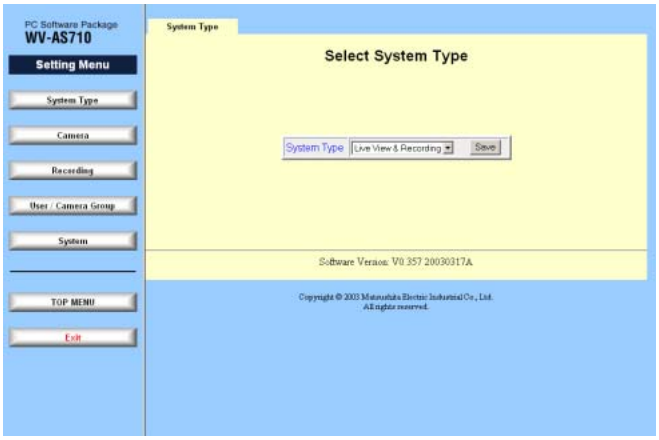
Setting Menu	Tab/Setting Page		
System Type	**System Type** Selects the system type.		
Camera	**Camera List** Displays the list and performs the basic settings of the camera properties.	**Camera Properties** Performs more detailed settings than the "Camera List" menu.	
	Camera Sleep Schedule List Displays the list for the camera sleep schedule.	**Camera Sleep Schedule Properties** Performs the settings for the camera sleep schedule.	
Recording	**Recording Status List** Displays the recording status.	**Disk Space Allocation for Camera #** Allocates disk space.	
		Disk Space Setting for Camera # Selects the menu to perform the settings for disk space.	**Disk Space Addition** Adds disk space.
			Delete Disk Space Deletes disk space.
			Clear Protected Disk Space Clears protected disk space.
	Disk Space Allocation Allocates the same amount of disk space simultaneously to the cameras which no disk space has been allocated yet.		
	Recording Schedule List Displays the list for the recording schedule.	**Recording Schedule Properties** Performs the settings for the recording schedule.	
	Alarm Recording Performs the recording parameter settings when an alarm occurs.		
User/Camera Group	**User List** Displays the Registered users and their belonging groups.	**User Registration** Adds users.	
		Change User Profile Changes passwords or belonging group of registered users.	
	Camera Grouping Assigns users to groups.		

Administration

Setting Menu	Tab/Setting Page	
User/Camera Group	**Group Name** Changes group names.	
System	**System Properties** Performs the basic settings of the network camera server.	
	Alarm Notification Performs the settings for how the network camera server informs of an alarm occurring.	**E-Mail Setting** Registers e-mail addresses of recipients for alarm mail.
	Stop and Restart Stops or restarts the WV-AS710.	
TOP MENU	Goes to the "TOP MENU".	
EXIT	Exits from the "Administrator's Page" and closes the browser window.	

System Type

Click the [System Type] button on the "Setting Menu".
The "Select System Type" menu will be displayed.
Select "Live View & Recording" or "Live View Only" from the pull-down menu.
When selecting "Live View & Recording", allocating disk space is required in advance.



System Type
Select the system type of the network camera server.

Live View & Recording
It is possible to record camera pictures on disk space for recorded pictures. (Disk space allocation is required in advance.)

Live View Only
Only delivery of live pictures is available with this system type. Recording, playback, searching and alarm function are not possible with this system type.

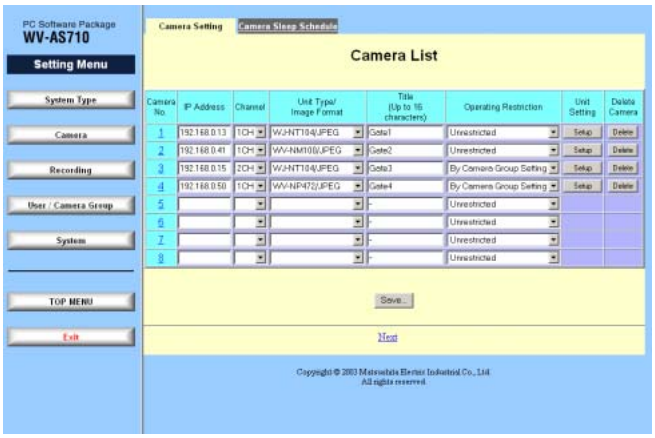
[Save] button
Click this button when the system type is changed. The dialog window for confirmation will be displayed. Click the [OK] button on the dialog window to confirm. After clicking the [OK] button, restart the WV-AS710 to make the changed system type valid.

Camera Setting

Camera List

Click the [Camera] button on the "Setting Menu" or click the "Camera Setting" tab.
The "Camera List" menu will be displayed. It is useful to check the registered cameras with this page.
It is possible to register or delete cameras using this menu.

Note: It is impossible to change the settings during recording.



Camera No.
Click the desired "Camera No." to display the "Camera Properties" menu of the desired camera. Refer to page 49 for further information about the "Camera Properties" menu.

IP Address
Enter the IP address of the selected camera. It is possible to enter the FQDN (Fully Qualified Domain Name) of the selected camera.
When a camera uses an HTTP port, except port number 80, to deliver pictures, enter (colon (:) port number) just after the IP address or the FQDN.
For example: 192.168.0.50:85

Channel
When the registered camera is connected to a network interface unit (WJ-NT104), select the channel (1CH - 4CH) of the network interface unit used for the selected camera from this pull-down menu.
When the registered camera is connected directly without a network interface unit (WV-NP472, WV-NS320, WV-NS324, WV-NM100), select "1CH".

Unit Type/Image Format
Select the model of the connected camera, and the image format of the camera picture that the camera delivers.

WJ-NT104/JPEG: When registering a camera connected to WJ-NT104, select this.

WV-NP472/JPEG: When registering a WV-NP472, select this.

WV-NS320/JPEG: When registering a WV-NS320 or WV-NS324, select this.

WV-NM100/JPEG: When registering a WV-NM100 delivering JPEG camera pictures, select this.

WV-NM100/MPEG-4: When registering a WV-NM100 delivering MPEG-4 camera pictures, select this.

Title (Up to 16 characters)
Assigning a title to the camera is available.

Operating Restriction
Select one of "Unrestricted", "View And Preset Only" or "By Camera Group Setting" to restrict users' access to the camera or not.

Unrestricted: When "Unrestricted" is selected, all users can access and operate the camera, except for recording.

View And Preset Only: Browsing live pictures and preset operations are possible.

By Camera Group Setting: Register a camera to groups using the "Camera Group Setting" page first ([User/Camera Group] button - (Camera Group Setting) tab). The "Operator" type users belonging to the group can operate this camera, including for recording. The "Monitor" type users belonging to the group only can view live pictures and preset operations. The other users cannot operate this camera at all.

Note: Basically, recording pictures can be done only by administrators. When "By Camera Group Setting" is selected, the "Operator" type users also can record pictures.

Unit Setting

Click the [Setup] button to display the setting menu (html) of the camera. Available settings are different depending on the connected camera. Refer to the operating instructions of the connected camera for further information about the setting menu.

[Delete] button

Click the [Delete] button to delete the selected registered camera from the "Camera List" menu. When this button is clicked, the dialog window for confirmation will be displayed. Click the [OK] button in the dialog window to complete. Click the [Cancel] button to cancel the deletion.

[Save…] button

Click this button to save the edited settings. When this button is clicked, the network camera server updates the settings.

Note: If any other menu is displayed without clicking this button after editing, the settings in the network camera server will not be updated. Click the [Cancel] button to cancel to update settings.

[Previous] link text

When the "Camera List" menu has two or more pages because many cameras are registered, and the currently displayed page is not the first page, this link text will be displayed. Click this link text to display the previous page.

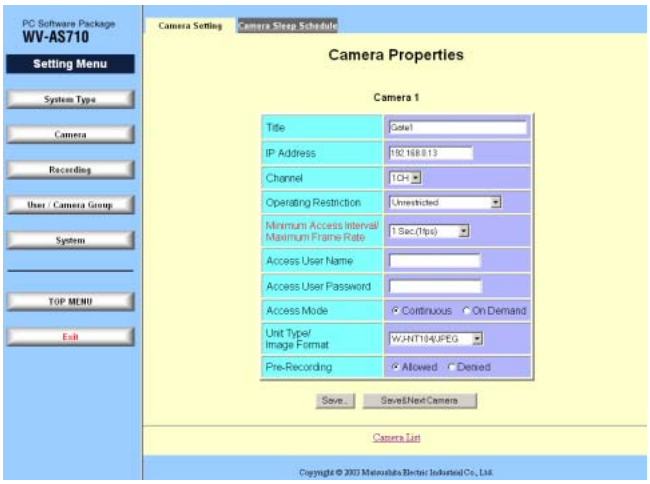
[Next] link text

When the "Camera List" menu has two or more pages because many cameras are registered, and the currently displayed page is not the last page, this link text will be displayed. Click this link text to display the next page.

Camera Properties

Click the desired "Camera No." in the "Camera List" menu.
The "Camera Properties" menu of the selected camera will be displayed.

Note: It is impossible to change the settings during recording.



Title

Assigning a title of up to 16 characters to the camera is possible.

IP Address

Enter the IP address of the selected camera. It is possible to enter the FQDN (Fully Qualified Domain Name) of the selected camera.

When a camera uses an HTTP port, except port number 80, to deliver pictures, enter (colon (:) port number) just after the IP address or the FQDN.

For example: 192.168.0.50:85

Channel

When the registered camera is connected to a network interface unit (WJ-NT104), select the channel (1CH - 4CH) of the network interface unit used for the selected camera from this pull-down menu.

When the registered camera is connected directly without a network interface unit (WV-NP472, WV-NS320, WV-NS324, WV-NM100), select "1CH".

Operating Restriction

Select one of "Unrestricted", "View And Preset Only" or "By Camera Group Setting" to restrict users' access to the camera or not.

Unrestricted: When "Unrestricted" is selected, all users can access and operate the camera, except for recording.

View And Preset Only: Browsing live pictures and preset operations are available.

By Camera Group Setting: Register a camera to groups using the "Camera Group Setting" page first ([User/Camera Group] button - (Camera Group Setting) tab). The "Operator" type users belonging to the group can operate this camera, including for recording. The "Monitor" type users belonging to the group only can view live pictures and preset operations. The other users cannot operate this camera at all.

Note: Basically, recording pictures can be done only by administrators. When "By Camera Group Setting" is selected, the "Operator" type users also can record pictures.

Minimum Access Interval/Maximum Frame Rate

Select an interval time for accessing the selected camera to capture pictures. The default setting is "1 Sec. (1fps)".

0.066 Sec. (15fps), 0.1 Sec. (10fps), 0.2 Sec. (5fps), 0.5 Sec. (2fps), 1 Sec. (1fps), 2 Sec., 3 Sec., 5 Sec., 10 Sec., 30 Sec., 60 Sec., 120 Sec., 180 Sec.

Note: Depending on the traffic on the network, it may be difficult to browse camera pictures. When the following occur frequently, adjust the interval time for capturing camera picture:

- When it is difficult to acquire camera pictures because the transmission speed is slow or the traffic on the network is too heavy to receive camera pictures.
- When around 5 seconds pass after accessing the network camera server, and the picture that says "Image capture has failed." is displayed.
- When many cameras are set at short interval times, it may cause heavy network traffic. It may cause not only incorrect access interval, but also critical network problems.

Access User Name

In cases where user authentication is required to access the camera or the network interface unit, enter the user name registered for the camera or the network interface unit here.

Access User Password

In cases where user authentication is required to access the camera or the network interface unit, enter the password registered for the camera or the network interface unit here.

Note: It is required to enter the "Access User Name" and "Access User Password" when using WV-NM100, WV-NS320 or WV-NS324. These are the user name and password registered to access the camera or the network interface unit, and are totally different from the user name and password required to access the network camera server. Some of the cameras may have an access level. Depending on the entered "Access User Name" and "Access User Password", it may be impossible to operate some of the cameras from the network camera server.

Refer to the operating instructions of the camera.

Access Mode

Select an access mode from "Continuous" or "On Demand".

Continuous: The network camera server will keep on capturing pictures.

On Demand: The network camera server will capture pictures only in the following cases:

- When a user selects a camera
- When the start time of the recording schedule comes
- When an alarm occurs

Note: When the alarm recording is set and "Continuous" is selected, it may not start alarm recording until a connection has been completed from the moment that the alarm occurred.

Unit Type/Image Format

Select the model of the connected camera, and the image format of the camera picture that the camera delivers.

WJ-NT104/JPEG: When registering a camera connected to WJ-NT104, select this.

WV-NP472/JPEG: When registering a WV-NP472, select this.

WV-NS320/JPEG: When registering a WV-NS320 or WV-NS324, select this.

WV-NM100/JPEG: When registering a WV-NM100 delivering JPEG camera pictures, select this.

WV-NM100/MPEG-4: When registering a WV-NM100 delivering MPEG-4 camera pictures, select this.

Pre-Recording

Select "Allowed" or "Denied" to activate the pre-recording or not.

When "Allowed" is selected, the network camera server will record camera pictures just before an alarm occurs. Pre-recording duration can be selected in the "Alarm Recording" menu.

Note: Pre-recording duration cannot be set differently for each camera.

[Save…] button

Click this button to save the edited settings.

When this button is clicked, the dialog window for confirmation will be displayed. Click the [OK] button in the dialog window to update the settings.

Note: If any other menu is displayed without clicking this button after editing, the settings in the network camera server will not be updated.

[Save & Next Camera] button

Click this button to save the edited settings, and go to the "Camera Properties" menu of the next camera.

When this button is clicked, the dialog window for confirmation will be displayed. Click the [OK] button in the dialog window to update the settings.

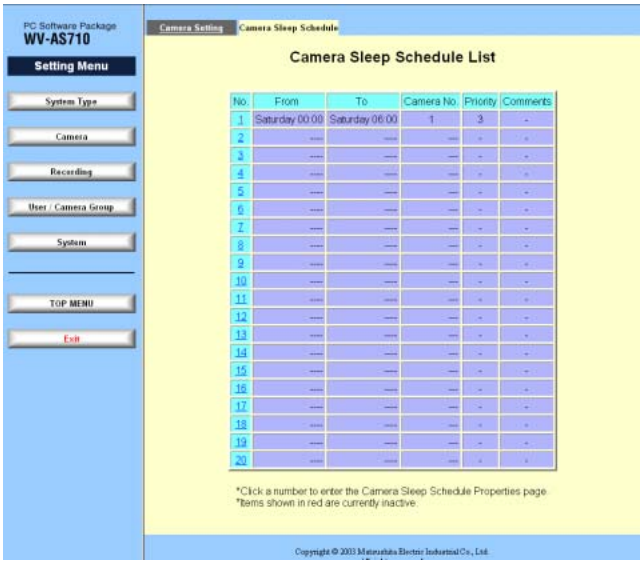
[Camera List] link text

Click this link text to return to the "Camera List" menu.

Camera Sleep Schedule

Camera Sleep Schedule List

Click the [Camera] button of the "Setting Menu" to display the "Camera List" menu, and click the "Camera Sleep Schedule" tab.
The "Camera Sleep Schedule" menu will be displayed. It is useful to check the camera sleep schedules with this page.
The "Camera Sleep Schedule" is the function to stop delivery of camera pictures, and to display a prepared still picture at the designated time. Up to 20 schedules can be registered.
Click the "Camera Sleep Schedule" tab.
Active schedules will be displayed in black, and inactive schedules will be displayed in red.



No.
The schedule number is indicated. To edit the camera sleep schedule, click this to display the "Camera Sleep Schedule" menu.

From
Start time (day and time) of the schedule will be displayed.

To
End time (day and time) of the schedule will be displayed.

Camera No.
The number of the camera to be scheduled will be displayed.

Priority
The priority level will be displayed. "1" is the highest priority. When two or more camera sleep schedules overlap, the camera sleep schedule with higher priority will be applied. If the priority level is also the same, priority will be decided as follows:

- When a schedule is registered while the network camera server is running, the latest registered schedule will be applied.
- When a schedule is registered just after the network camera server has started up, the schedule with higher schedule number will be applied.

Comments
Comments about schedules will be displayed.

Camera Sleep Schedule Properties

Click a desired "No" on the "Camera Sleep Schedule List" menu to display the "Camera Sleep Schedule Properties" menu. Perform the settings for the selected camera sleep schedule or delete the selected camera sleep schedule.

Schedule No.

The schedule number is indicated.

Active/Inactive

Active: Select this to activate the selected schedule.

Inactive: Select this to inactivate the selected schedule.

From

Select the day, hour and minute (increments of 5 minutes) from the pull-down menu time for the start time of the selected schedule.

Day: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday, Mon. to Fri., Sat. and Sun., Daily

Hour: 0 – 23, Every

Minute: 0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55 (min.), Every

Note: To activate "Camera Sleep Schedule" for 24 hours, select "Daily" for "Day", "Every" for "Hour" and "Every" for "Minute".

To

Select the day, hour and minute (increments of 5 minutes) from the pull-down menu time for the end time of the selected schedule.

Day: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday, Mon. to Fri., Sat. and Sun., Daily

Hour: 0 – 23, Every

Minute: 0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55 (min.), Every

Note: When "Daily" for "Day" is selected, it is required to select "Every" for "Hour" and "Every" for "Minute".

Camera No.

Enter the desired camera number to be used for the selected schedule. When two cameras or more are used for this schedule, insert a comma "," between the camera numbers. When all cameras are used for this schedule, enter an asterisk "*" in this input box.

Priority

Select the priority level (1 – 4) from the pull-down menu. "1" is the highest priority. The picture to be delivered will differ according to the priority. When two or more camera sleep schedules overlap, the picture with higher priority will be delivered.

The sample pictures will be installed in the directory below when the WV-AS710 is installed.

The details of the sample pictures are listed below.

/usr/local/s3/bin

File name	Designed for	Message
blue1.jpg/blue1.mg4	Priority 1	"Live streaming video is currently unavailable." This message will be displayed when delivery of the camera pictures is stopped by the "Camera Sleep Schedule" of priority 1.
blue2.jpg/blue2.mg4	Priority 2	"This camera is currently unavailable." This message will be displayed when delivery of the camera pictures is stopped by the "Camera Sleep Schedule" of priority 2.
blue3.jpg/blue3.mg4	Priority 3	"This server is currently unavailable. Please try later." This message will be displayed when delivery of the camera pictures is stopped by the "Camera Sleep Schedule" of priority 3.
blue4.jpg/blue4.mg4	Priority 4	"Image capture has failed." This message will be displayed when delivery of the camera pictures is stopped by the "Camera Sleep Schedule" of priority 4.

According to your needs, replace the JPEG (.jpg) sample pictures with customized JPEG pictures by naming them with the same name as the sample pictures.
The size of a customized JPEG picture should be less than 100kbyte, and the recommended resolution is 320 x 240 pixels.
It is impossible to replace the MPEG-4 files (.mg4).

Comments

Write comments about the selected schedule.

[Save…] button

Click this button to save the settings of the "Camera Sleep Schedule" menu. When this button is clicked, the dialog window for confirmation will be displayed. Click the [OK] button in the dialog window to confirm.

[Delete…] button

Click this button to delete the selected camera sleep schedule. When this button is clicked, the dialog window for confirmation will be displayed. Click the [OK] button in the dialog window to confirm.

[Camera Sleep Schedule List] link text

Click this link text to display the "Camera Sleep Schedule List" menu.

Notes:

- When two or more schedules are in succession, the accuracy of sequential recording of the schedules may not be guaranteed. Live pictures may be delivered temporarily between the schedules.
- When a camera sleep schedule is changed, live pictures may be delivered temporarily until the changed schedule is validated.

Recording Status List

Click the [Recording] button of the "Setting Menu" or click the "Recording Status" tab.
The "Recording Status List" menu will be displayed. It is useful to check the status of disk space for each camera with this page.

Camera No.

Click the desired "Camera No." to perform the settings for the disk space of the selected camera.

If the disk space for the selected camera has not yet been allocated :

The "Disk Space Allocation for Camera #" menu will be displayed. (# is the selected camera number)

If disk space for the selected camera has already been allocated:

The "Disk Space Setting for Camera #" menu will be displayed. (# is the selected camera number.)

IP Address

The IP address of each connected camera is displayed.

Channel

The channel of each camera connected by the network interface unit is displayed.

Title

The title of each connected camera is displayed.

Recording Status (ASM)

The status of recording (Alarm Recording, Schedule Recording or Manual Recording) of each connected camera is displayed.

Red -: Alarm Recording

Blue -: Schedule Recording

Black -: Manual Recording

During recording, "–" becomes "+".

Allocated Space (MB)

The allocated disk space for each connected camera is displayed. (Unit size: MB)

Used Space

The used disk space for each connected camera is displayed as a bar graph. The type of recording can be identified by the color of the bar graph.

Gray: This color part is used by pre-recording.

Red: This color part is used as protected disk space by the network camera server. (When the protected disk space is cleared, the red part will turn black.)

Blue: This color part is unprotected disk space of the network camera server.

Black: This color part is unused disk space.

Pre-Recording Time (Sec.)

The pre-recording time (recording time before an alarm occurs) will be displayed. This will be displayed only when both the following are executed:

- On the "Camera Properties" menu of the selected camera, "Allowed" is selected for "Pre-recording".
- "ON" is selected for " Recording", and a value of "Duration" for "Pre-Recording" is selected on the "Alarm Recording" menu.

Comments

The status of the disk space for each connected camera is displayed.

The following comments will be displayed according to the status:

- Formatting the disk space.
- Adding the disk space.
- Deleting the disk space.
- Clearing the protected disk space.

[Previous] link text

When the "Recording Status List" menu has two or more pages because many cameras are registered, and the currently displayed page is not the first page, this link text will be displayed.

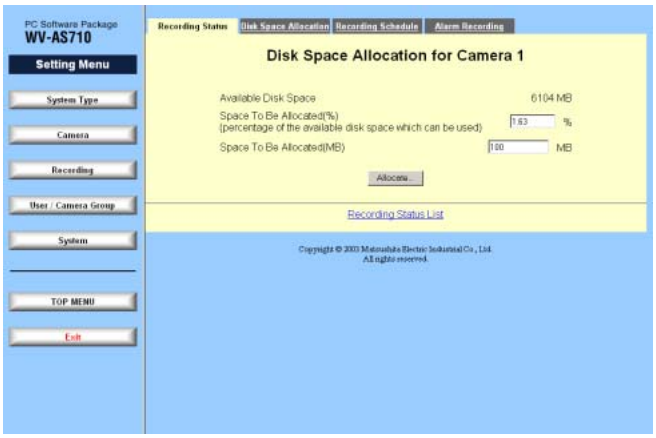
Click this link text to display the previous page.

[Next] link text

When the "Recording Status List" menu has two or more pages because many cameras are registered, and the currently displayed page is not the last page, this link text will be displayed.
Click this to display the next page.

Disk Space Allocation for Camera

Click the desired "Camera No." of the camera to which no disk space has been allocated yet in the "Recording Status List" menu. The "Disk Space Allocation for Camera #" menu will be displayed. (# is the selected camera number)
Allocate the disk space for the selected camera on this menu.



Available Disk Space

The available disk space will be displayed. (Unit size: MB).

Space To Be Allocated (%) (percentage of the available disk space which can be used)

Enter the percentage of the disk space for the selected camera to be allocated as a designated proportion (%). When another input box is clicked after entering the percentage number, the entered percentage will be converted into megabytes, and the converted value will be displayed in the input box "Space To Be Allocated (MB)" automatically.

Space To Be Allocated (MB)

Enter the size of the disk space for the selected camera to be allocated as a designated size (MB). When another input box is clicked after entering the amount of disk space, the entered size will be converted into the respective percentage and the converted value will be displayed in the input box "Space To Be Allocated (%) (percentage of the disk space which can be used)" automatically.

Note: It is impossible to enter a number bigger than the "Available Disk Space".

[Allocate…] button

Click this button to format and allocate the disk space. When this button is clicked, a dialog window for confirmation will be displayed. Click the [OK] button in the dialog window to complete.

[Recording Status List] link text

Click this link text to return to the "Recording Status List" menu.

Disk Space Setting for Camera

Click the desired "Camera No." of the camera to which the disk space has already been allocated in the "Recording Status List" menu. The "Disk Space Setting for Camera #" menu will be displayed. (# is the selected camera number)

This menu has the following links.

- "Disk Space Addition" link text
- "Delete Disk Space" link text
- "Clear Protected Disk Space" link text

[Disk Space Addition] link text

Click this link text to display the "Disk Space Addition for Camera #". (# is the selected camera number)

[Delete Disk Space] link text

Click this link text to display the "Delete Disk Space for Camera #". (# is the selected camera number)

[Clear Protected Disk Space] link text

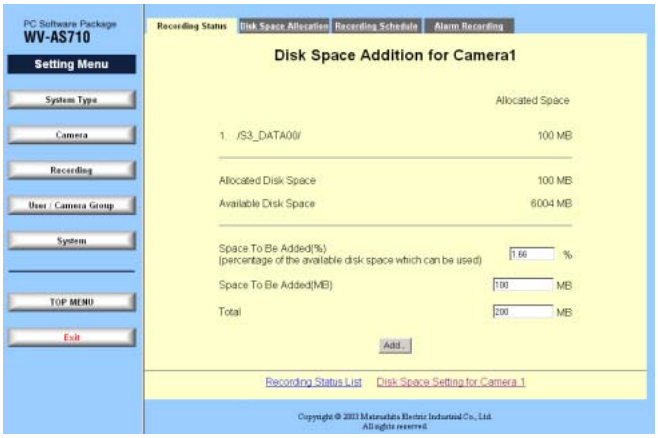
Click this link text to display the "Clear Protected Disk Space for Camera #" menu. (# is the selected camera number)

[Recording Status List] link text

Click this link text to return to the "Recording Status List" menu.

Disk Space Addition for Camera

Click the desired "Camera No." of the camera to which the disk space has already been allocated in the "Recording Status List" menu. The "Disk Space Setting for Camera #" menu will be displayed. (# is the selected camera number)
Click the "Disk Space Addition" link text to display the "Disk Space Addition for Camera #". (# is the selected camera number)
Adding disk space for the selected camera to increase recording time is possible on this page.



Upper Part

#. /S3_DATAxx/

The name of the disk space and the allocated size for the selected camera will be displayed. (# is the number of disk space, xx is a two digits number)

Middle Part

Allocated Disk Space

The size of the disk space allocated for the selected camera will be displayed.

Available Disk Space

The available disk space possible to allocate to the selected camera will be displayed.

Bottom Part

Space To Be Added (%) (percentage of the available disk space which can be used)

Enter the desired percentage of the available disk space to allocate to the selected camera. When another input box is clicked after entering percentage number, the entered percentage will be converted into megabytes and the converted value will be displayed in the input box "Space To Be Added (MB)" automatically. The total size allocated for the selected camera will also be recalculated and displayed in the "Total" automatically.

Space To Be Added (MB)

Enter the desired size (MB) of the available disk space to allocate for the selected camera. When another input box is clicked after entering the amount of disk space, the entered size (MB) will be converted into a percentage and the converted value will be displayed in the input box "Space To Be Added (%)" automatically. The total size allocated for the selected camera will also be recalculated and displayed in the "Total" automatically.

Note: It is impossible to enter a number bigger than the "Available Disk Space".

Total

Enter the desired total size (MB) of the disk space to allocate for the selected camera. When another input box is clicked after entering the number for total size, the entered total size (MB) will be converted into a percentage and the converted value will be displayed in the input box "Space To Be Added (%)" and "Space To Be Added (MB)" automatically.

Note: It is impossible to enter a number bigger than the "Available Disk Space".

[Add…] button

Click this button to add disk space for the selected camera. When this button is clicked, the disk space will be added and the total size of disk space will be the same size as displayed in the "Total" input box.

[Recording Status List] link text

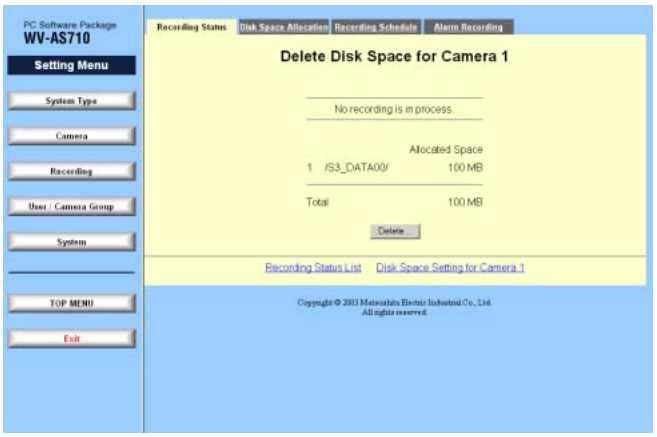
Click this link text to return to the "Recording Status List" menu.

[Disk Space Setting for Camera #] link text

Click this link text to return to the "Disk Space Setting for Camera #" menu.

Delete Disk Space for Camera

Click the desired "Camera No." of the camera to which the disk space has already been allocated in the "Recording Status List" menu. The "Recording Status for Camera #" menu will be displayed. (# is the selected camera number) Click the "Delete Disk Space" link text to display the "Delete Disk Space for Camera #". (# is the selected camera number)



Upper Part

The status of the disk space for the selected camera will be displayed. When recording is in process, deletion is impossible.

Middle Part

The name and size of the disk space allocated for the selected camera will be displayed.

Bottom Part

The total size of the disk space allocated for the selected camera will be displayed.

[Delete…] button

Click this button to delete the allocated disk space for the selected camera from the disk space for recorded pictures. When this button is clicked, the dialog window for confirmation will be displayed. Click the [OK] button in the dialog window to complete.

[Recording Status List] link text

Click this link text to return to the "Recording Status List" menu.

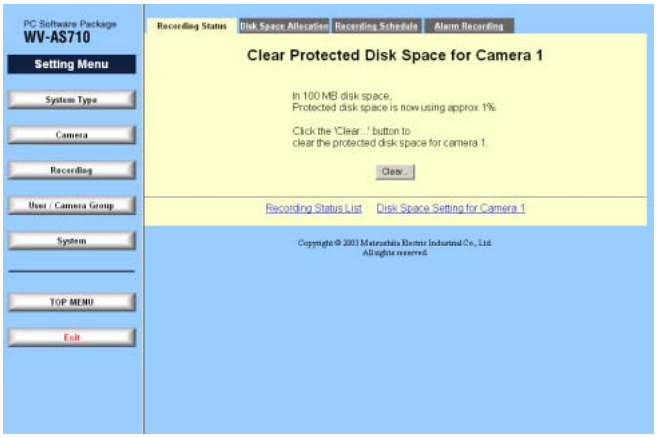
[Disk Space Setting for Camera #] link text

Click this link text to return to the "Disk Space setting for Camera #" menu.

Clear Protected Disk Space for Camera

Click the desired "Camera No." of the camera to which the disk space has already been allocated in the "Recording Status List" menu. The "Recording Status for Camera #" menu will be displayed. (# is the selected camera number) Click the [Clear Protected Disk Space] link text to display the "Clear Protected Disk Space for Camera #". When protected disk space is cleared, available disk space will be increased. This menu is available only when "Protect" is selected for "Data Protection Mode" on the "Recording Schedule Properties" menu or on the "Alarm Recording" menu. When there is no protected disk space, "Currently No Protected Disk Space" will be displayed.

Note: All protected recorded pictures will be deleted when the protected disk space is cleared.



[Clear…] button

Click this button to clear the recorded pictures in the protected disk space for the selected camera. When this button is clicked, the dialog window for confirmation will be displayed. Click the [OK] button in the dialog window to complete.

[Recording Status List] link text

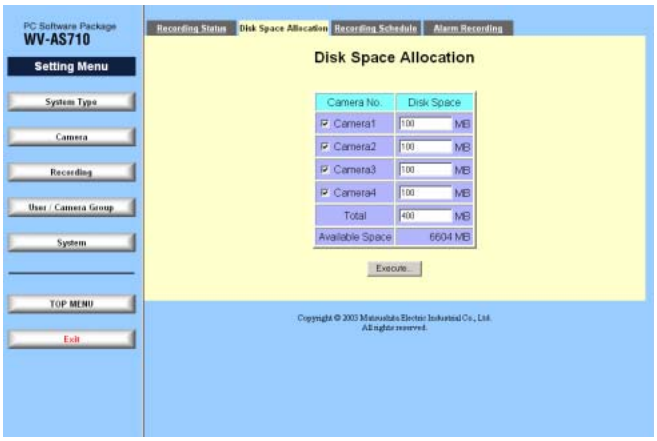
Click this link text to return to the "Recording Status List" menu.

[Disk Space Setting for Camera #] link text

Click this link text to return to the "Disk Space Setting for Camera #" menu.

Disk Space Allocation

Click the [Recording] button of the "Setting Menu" and click the "Disk Space Allocation" tab.
The "Disk Space Allocation" menu will be displayed.
On this menu, it is possible to allocate the same amount of disk space simultaneously to the selected cameras which no disk space has been allocated yet.



Camera No.
Check the box to select cameras requiring allocation of disk space.

Disk Space
After this menu is displayed, the available disk space for each registered camera will be displayed automatically, it is calculated by dividing the total available disk space by the number of the registered cameras.
Entering the desired size (in Megabytes) in the "Disk Space" input box is also possible. In this case, when another input box is clicked, the "Total" will be recalculated automatically.

Total
Total disk space that can be allocated for the registered cameras will be calculated and displayed here.

Available Space
Available space will be displayed.

[Execute...] button
Click this button to start formatting and allocation. When this button is clicked, the dialog window for confirmation will be displayed. Click the [OK] button in the dialog window to complete.
Note: If any other menu is displayed without clicking this button after editing, the settings in the network camera server will not be updated.

Recording Schedule List

Click the [Recording] button of the "Setting Menu" to display the "Recording Schedule List" menu, or click the "Recording Schedule" tab.
The "Recording Schedule" menu will be displayed. It is useful to check the recording schedules with this page.
The "Recording Schedule" is the function to record camera pictures automatically at designated times. Up to 20 schedules can be registered.
Active schedules will be displayed in black, and inactive schedules will be displayed in red.

No.
The schedule number is indicated. To edit the recording schedule, click this to display the "Recording Schedule Properties" menu.

From
Start time (day and time) of the schedule will be displayed. When "Daily" for "Day", "Every" for "Hour" and "Every" for "Minute" are selected, "Continuous" will be displayed here.

To
End time (day and time) of the schedule will be displayed. When "Daily" for "Day", "Every" for "Hour" and "Every" for "Minute" are selected, "Continuous" will be displayed here.

Camera No.
The number of the camera to be scheduled will be displayed.

Protection Mode
If the disk space is protected it displays "Protect", if not "Overwrite".

Interval
The recording interval will be displayed.
When pictures are recorded in the JPEG format, actual recording interval may be different from the displayed value. Refer to page 63 for further information.
When pictures are recorded in the MPEG-4 format, recording interval differs depending on the transmission speed of cameras.

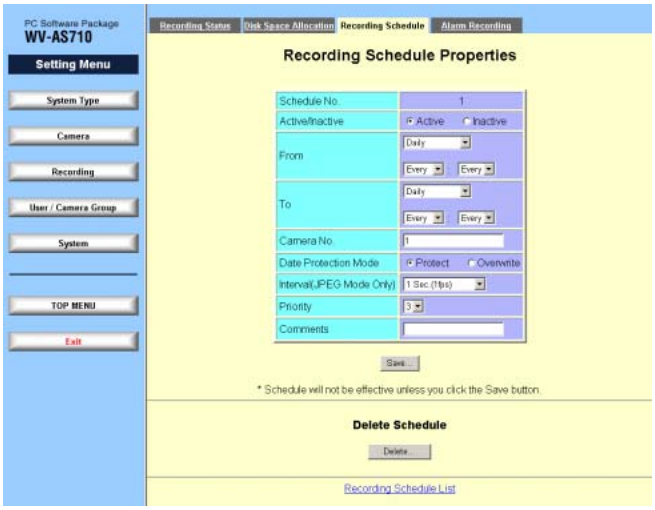
Priority
The priority level (1 - 4) will be displayed."1" is the highest priority. When two or more camera recording schedules overlap, the recording schedule with higher priority will be applied. If the priority level is also the same, priority will be decided as follows:

- When a schedule is registered while the network camera server is running, the latest registered schedule will be applied.
- When a schedule is registered just after the network camera server has started up, the schedule with the higher schedule number will be applied.

Comments
Comments about schedules will be displayed.

Recording Schedule Properties

Click the desired "No" on the "Recording Schedule List" menu to display the "Recording Schedule Properties" menu. Perform the settings for the selected recording schedule or delete the selected recording schedule.



Schedule No.

The schedule number is indicated.

Active/Inactive

Active: Select this to activate the selected schedule.

Inactive: Select this to inactivate the selected schedule.

From

Select the day, hour and minute (increments of 5 minutes) from the pull-down menu for the start time of the selected schedule.

Day: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday, Mon. to Fri., Sat. and Sun., Daily

Hour: 0 – 23, Every

Minute: 0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55 (min.), Every

Note: To activate "Recording Schedule" for 24 hours, select "Daily" for "Day", "Every" for "Hour" and "Every" for "Minute".

To

Select the day, hour and minute (increments of 5 minutes) from the pull-down menu for the end time of the selected schedule.

Day: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday, Mon. to Fri., Sat. and Sun., Daily

Hour: 0 – 23, Every

Minute: 0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55 (min.), Every

Note: When "Daily" for "Day" is selected, it is required to select "Every" for "Hour" and "Every" for "Minute".

Camera No.

Enter the desired camera number to be used for the selected schedule. When two cameras or more are used for this schedule, insert a comma "," between the camera numbers. When all cameras are used for this schedule, enter an asterisk "*" in this input box.

Data Protection Mode

Select to protect the recorded pictures of the schedule saved as disk space or not.

Protect

The recorded pictures will be saved in the protected area (protected disk space) in the disk space. The recorded pictures will be protected until the recorded pictures are cleared from the "Clear Protected Disk space for Camera #" menu (# is the selected camera number) even if the formatting of the disk space is performed.

Overwrite

The recorded pictures will be saved in the unprotected area in disk space. In this case, the oldest recorded picture will be overwritten first when disk space is filled to capacity.

Interval (JPEG Mode Only)

Select a recording interval from the pull-down menu.

0.066 Sec. (15fps), 0.1 Sec. (10fps), 0.2 Sec. (5fps), 0.5 Sec. (2fps), 1 Sec. (1fps), 2 Sec., 3 Sec., 5 Sec., 10 Sec., 30 Sec., 60 Sec., 120 Sec., 180 Sec.

When pictures are recorded in the MPEG-4 format, recording interval differs depending on the transmission speed of cameras.

Note: When two or more recordings are performed or depending on the selected values for "Interval" and "Minimum Access Interval/Maximum Frame Rate", pictures may be recorded at a different recording interval from the set value for "Interval". Refer to "About Interval" on this page for further information.

Priority

The priority level (1 - 4) will be displayed. "1" is the highest priority. When two or more camera recording schedules overlap, the recording schedule with higher priority will be applied. If the priority level is also the same, priority will be decided as follows:

- When a schedule is registered while the network camera server is running, the latest registered schedule will be applied.
- When a schedule is registered just after the network camera server has started up, the schedule with the higher schedule number will be applied.

Comments

You can write comments about schedules.

[Save…] button

Click this button to save the settings of the "Recording Schedule Properties" menu. When this button is clicked, the dialog window for confirmation will be displayed. Click the [OK] button in the dialog window to confirm.

Note: If any other menu is displayed without clicking this button after editing, the settings in the network camera server will not be updated. Click the [Cancel] button to cancel to update settings.

[Delete…] button

Click this button to delete the selected recording schedule. When this button is clicked, the dialog window for confirmation will be displayed. Click the [OK] button in the dialog window to confirm.

[Recording Schedule List] link text

Click this link text to display the "Recording Schedule List" menu.

About "Interval"

- **Relation to "Priority" and "Data Protection Mode"**

  When two or more recordings are performed in the same period of time, "Interval" will change during recording depending on the following circumstances.

1. **When "Data Protection Mode" is different**

   Regardless of the setting for "Priority", recording will be performed at the recording interval of the recording whose "Data Protection Mode" is "Protect". For example, when a manual recording (priority: 4, recorded pictures are stored in the protected disk space) is performed during a schedule recording whose priority is set to "2" and also "Overwrite" is selected for "Data Protection Mode", pictures will be recorded at the recording interval of the manual recording.

2. **When "Data Protection Mode" is the same**

   Recording will be performed at the recording interval of the recording whose "Priority" is the highest.

3. **When "Priority" and "Data Protection Mode" are the same**

   Recording will be performed at the recording interval of the recording started later.

- **Relation to "Minimum Access Interval/Maximum Frame Rate"**

  Basically, the network camera server records camera pictures when acquiring camera pictures. Therefore, recording will be performed at the selected value for "Minimum Access Interval/Maximum Frame Rate" in the following cases.

  When the selected value for "Interval" is the same or longer than the selected value for "Minimum Access Interval/Maximum Frame Rate"

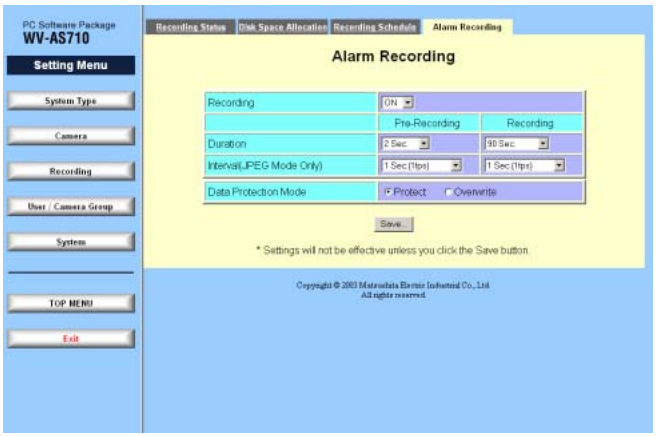
  When the selected value for "Interval" is an integral multiple value of the selected value for "Minimum Access Interval/Maximum Frame Rate", recording will be performed at the selected "Interval". However, when the selected value for "Interval" is not an integral multiple value of the selected value for "Minimum Access Interval/Maximum Frame Rate", recording will be performed at the selected "Minimum Access Interval/Maximum Frame Rate".

  When the selected value for "Interval" is shorter than the selected value for "Minimum Access Interval/Maximum Frame Rate"

  In this case, recording will be performed at the selected "Minimum Access Interval/Maximum Frame Rate".

Alarm Recording

Click the [Recording] button of the "Setting Menu" to display the "Recording Schedule List" menu and click the "Alarm Recording" tab.
The "Alarm Recording" menu will be displayed.



Recording

Select "ON" or "OFF" to record camera pictures, or not, when an alarm occurs at the camera site.

Notes:

- "Priority" of alarm recording is "3" and cannot be changed.
- In the case where disk space is not allocated to a camera at which an alarm occurred, or when disk space for the camera is full, it will not be possible to record alarm pictures.
- To record alarm pictures, it is required to validate "Panasonic Protocol" for cameras or network interface unit, and it is also required to register the IP address of the network camera server as recipient.
- It is possible to notify through TCP/IP only when devices transmitting "Panasonic Protocol" and the network camera server are IP reachable.
- It is not possible to record alarm pictures by the internal alarm of a camera connected to a network interface unit.
- It will be impossible to identify which camera is transmitting an alarm signal if a router is installed between a camera site and the network camera server, and when sharing an IP address at the center site for two or more cameras using network address translation. In this case, the network camera server will regard the camera with the lowest camera number as the camera transmitting the alarm signal.

Pre-Recording

Select how many seconds before an alarm occurs, the network camera server starts recording. When recording in the JPEG format, alarm pictures will be recorded at the selected interval for "Interval (JPEG Mode Only). When pictures are recorded in the MPEG-4 format, recording interval differs depending on the transmission speed of cameras.

Duration: --- (None), 2 Sec., 3 Sec., 5 Sec., 10 Sec., 20 Sec., 30 Sec., 60 Sec., 90 Sec., 120 Sec., 180 Sec.

Interval (JPEG Mode Only): 0.066 Sec. (15fps), 0.1 Sec. (10fps), 0.2 Sec. (5fps), 0.5 Sec. (2fps), 1 Sec. (1fps), 2 Sec., 3 Sec., 5 Sec., 10 Sec., 30 Sec., 60 Sec., 120 Sec., 180 Sec.

Note: When two or more recordings are performed or depending on the selected values for "Interval" and "Minimum Access Interval/ Maximum Frame Rate", pictures may be recorded at a different recording interval from the set value for "Interval". Refer to page 63 for further information.

Recording

Select how many seconds after an alarm occurs the network camera server starts recording. When recording in the JPEG format, alarm pictures will be recorded at the selected interval for "Interval (JPEG Mode Only). When pictures are recorded in the MPEG-4 format, recording interval differs depending on the transmission speed of cameras.

Duration: 1 image only, 2 Sec., 3 Sec., 5 Sec., 10 Sec., 20 Sec., 30 Sec., 60 Sec., 90 Sec., 120 Sec., 180 Sec.

Interval (JPEG Mode Only): 0.066 Sec. (15fps), 0.1 Sec. (10fps), 0.2 Sec. (5fps), 0.5 Sec. (2fps), 1 Sec. (1fps), 2 Sec., 3 Sec., 5 Sec., 10 Sec., 30 Sec., 60 Sec., 120 Sec., 180 Sec.

Note: When two or more recordings are performed or depending on the selected values for "Interval" and "Minimum Access Interval/ Maximum Frame Rate", pictures may be recorded at a different recording interval from the set value for "Interval". Refer to page 63 for further information.

Data Protection Mode

Select to protect the recorded alarm pictures saved on disk space or not.

Protect

The recorded alarm pictures will be saved in the protected area (protected disk space) of the disk space. The recorded alarm pictures will be protected until they are cleared from the "Clear Protected Disk space for Camera #" menu (# is the selected camera number) even if the formatting of the disk space is performed.

Overwrite

The recorded pictures will be saved in the unprotected area of the disk space. In this case, the oldest recorded picture will be overwritten first when disk space is filled to capacity.

[Save…] button

Click this button to save the settings of the "Alarm Recording" menu. When this button is clicked, the dialog window for confirmation will be displayed. Click the [OK] button in the dialog window to confirm.

Note: If any other menu is displayed without clicking this button after editing, the settings in the network camera server will not be updated.

Authentication

The network camera server authenticates users by user name and password.
There are 3 user types, "Administrator", "Operator" and "Monitor".
Users also must belong to a group among "Group1" - "Group20" or "admin".
Users belonging to "admin" are regarded as administrators.

Operable functions for each user differ depending on the user type, belonging group and the operating restriction as below.

When "Unrestricted" is selected for "Operating Restriction"

User Type	Browsing live camera picture	Preset operation	Operation of a camera except preset operation	Searching and playback	Recording
Administrator	○	○	○	○	○
Operator	○	○	○	○	x
Monitor	○	○	○	○	x

When "View And Preset Only" is selected for "Operating Restriction"

User Type	Browsing live camera picture	Preset operation	Operation of a camera except preset operation	Searching and playback	Recording
Administrator	○	○	○	○	○
Operator	○	○	x	x	x
Monitor	○	○	x	x	x

When "By Camera Group Setting" is selected for "Operating Restriction", and a camera and a user belongs to the same group

User Type	Browsing live camera picture	Preset operation	Operation of a camera except preset operation	Searching and playback	Recording
Administrator	○	○	○	○	○
Operator	○	○	○	○	○
Monitor	○	○	x	x	x

When "By Camera Group Setting" is selected for "Operating Restriction", and a camera and a user belongs to the different group

User Type	Browsing live camera picture	Preset operation	Operation of a camera except preset operation	Searching and playback	Recording
Administrator	○	○	○	○	○
Operator	x	x	x	x	x
Monitor	x	x	x	x	x

Group

There are two kinds of group, the general user group "Group 1" - "Group 20", and the administrator group "admin". All users should belong to a group.

The general user group "Group 1 - 20"

The groups "Group 1" - "Group 20" are for general users.
When "By Camera Group Setting" is selected for "Operating Restriction" on the "Camera Properties" menu of a camera, only users belonging to the same group can access the camera.

Even if users belong to the same group, what users can do with access to cameras differs depending on the user type.
A camera can belong to two or more groups.
Note: The "Administrator's Page" cannot be accessed using a user name and a password assigned to a user belonging to a general group.

Administrator group "admin"

Only users belong to the administrators "admin" can display the "Administrator's Page".
An administrator has to belong to the "admin" group.
If no user belongs to the "admin" group, it will be impossible to administrate the network camera server since no user can access the "Administrator's Page".
All users belonging to the "admin" group can operate all cameras, record, play recorded pictures, and administrate the network camera server by accessing the "Administrator's Page".

Restrictions

There are the following group restrictions.

- A user cannot belong to two or more groups. When a user needs to access cameras belonging to two or more groups, the user is required to be registered in each group with different user names to access these cameras.
- To assign the camera to a group, select "By Camera Group Setting" for "Operating Restriction" in the "Camera Properties" menu of the selected camera.

User

Basically, a user must belong to only one group among the 20 general user groups of "Group 1 - 20" or the administrator group "admin". (A camera can belong to two or more groups.)
A user can access only cameras belonging to the same group.
Depending on the user type and the group to which the user belongs, what the user can do with access to cameras differs.
There are two user types, "Monitor" and "Operator".

When a user is assigned to the general group "Group 1 - 20"

Users belonging to one of these groups can access a camera that belongs to the same group to view live camera pictures or to operate it.
(When "Unrestricted" is selected for "Operating Restriction" on the "Camera Properties" menu of the selected camera, all users can access the camera to view live camera pictures and operate preset functions.)

Note: To prevent illegal access, it is recommended to not select "Unrestricted" for "Operating Restriction" in the "Camera Properties" menu of all cameras.

When a user is assigned to the administrator group (admin)

All users belong to this group (administrators) can operate all cameras, record, play recorded pictures, preset operations and administrate the network camera server by accessing the "Administrator's Page".

User Type

There are two user types, "Operator" and "Monitor".

Operator

A user of this type can view live pictures, operate cameras, record, search and play recorded pictures from the cameras belonging to the same group.

Monitor

A user of this user type only can view live pictures and perform the preset operations of the cameras belonging to the same group.

User Authentication

A user can operate cameras or functions only when the user is authenticated.
When selecting a camera for which the user is not authenticated, the authentication dialog window will be displayed.
Enter a registered user name and a password to be authenticated for the selected camera, or cancel.

User List

Click the [User/Camera Group] button of the "Setting Menu" or click the "User Setting" tab to display the "Recording Schedule List" menu.
The "User List" menu will be displayed. It is useful to check the registered users with this page.

Note: At least a user has to belong to the "admin" group as an administrator.
If no user belongs to the "admin" group, it will be impossible to administrate the network camera server since no user can access the administration menus.
As a default setting, a user (user name: admin, group: admin) is already registered (password is the one entered when installing the WV-AS710).

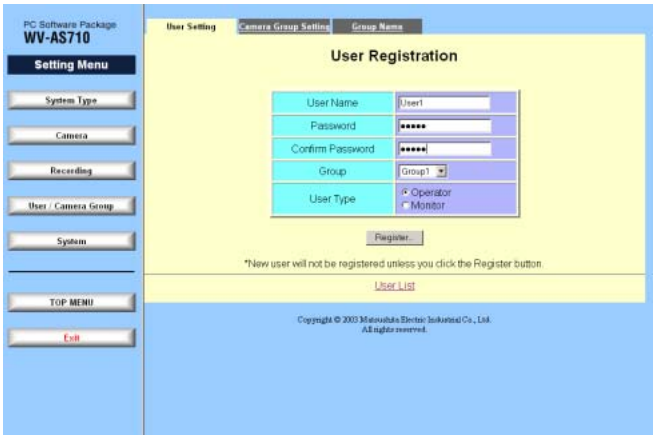
[User Registration…] button
To register a new user, click this button to display the "User Registration" menu, and do it on that menu.

User Name
The list of registered user names will be displayed. To change a user profile (password, Group, User Type) or delete a user from the user list, click the required user name to display the "Change User Profile" menu of the selected user, and do it on that menu.

Group Name
The group to which user belongs will be displayed.

User Registration

Click the [User Registration…] button on the "User List" menu to display the "User Registration" menu. On this page, register a new user.



User Name

Enter an unregistered user name for a new user of up to 32 alphanumeric characters.

Note: The registered user name cannot be changed. When registered mistakenly, delete the user name and register it again. Display the "User Registration" menu to delete a user name.

Password

Enter a password for a new user name up to 32 alphanumeric characters.

Confirm Password

Enter the same password entered in the "Password" input box above for confirmation.

Group

Select a group this user should belong to. The "Group1 –20" and "admin" are registered as default groups.

Admin:

Users who administrate the network camera server (administrators) are required to belong to this group. All users belonging to the "admin" group can operate all cameras, record, search, play recorded pictures, preset operation and administrate the network camera server by accessing the "Administrator's Page".

Group 1-20

These groups are for general users to access the network camera server to browse live camera pictures or operate cameras.

What users can do while accessing cameras differs depending on the user type.

Users belonging to these groups cannot access the "Administrator's Page".

Note: The names of groups can be changed on the "Group Name" menu.

User Type

Select a user type for the user from "Operator" or "Monitor". Refer to the "Authentication" on page 66 for information about what users can do when accessing cameras. When a user belongs to the "admin" group, settings for the "User Type" will be ignored.

[Register…] button

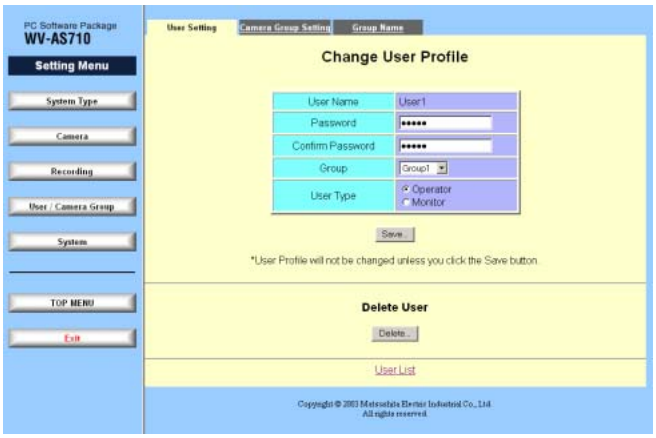
Click this button to add a new user with the entered profile. When this button is clicked, the dialog window for confirmation will be displayed. Click the [OK] button in the dialog window to confirm.

[User List] link text

Click this link text to return to the "User List" menu.

Change User Profile

Click the [User Name] on the "User List" menu to display the "Change User Profile" menu. On this page, change the password, belonging group and the user type of the selected user.



User Name

The selected user name will be displayed. It is impossible to change the user name.

Password

Enter a new password up to 32 alphanumeric characters when a new password is needed. The entered password will not be displayed for security.

Confirm Password

Enter the same new password entered in the "Password" input box above for confirmation.

Group

Admin:

Users who administrate the network camera server (administrators) are required to belong to this group. All users belonging to the "admin" group can operate all cameras, record, search, play recorded pictures, preset operation and administrate the network camera server by accessing the "Administrator's Page".

Group 1-20

These groups are for general users to access the network camera server to browse live camera pictures or operate cameras.

What users can do while accessing cameras differs depending on the user type.

Users belong to these groups cannot access the "Administrator's Page".

Note: The names of groups can be changed on the "Group Name" menu.

User Type

Select a user type for the user from "Operator" or "Monitor". Refer to the "Authentication" on page 66 for information about what users can do when accessing cameras. When a user belongs to the "admin" group, settings for the "User Type" will be ignored.

[Save…] button

Click this button to save the new profile. When this button is clicked, the dialog window for confirmation will be displayed. Click the [OK] button in the dialog window to confirm.

Note: If any other menu is displayed without clicking this button after editing, the settings in the network camera server will not be updated.

[Delete…] button

Click this button to delete the selected user. When this button is clicked, the dialog window for confirmation will be displayed. Click the [OK] button in the dialog window to confirm. Display the "User List" menu and check that the deleted user is not in the "User List" menu.

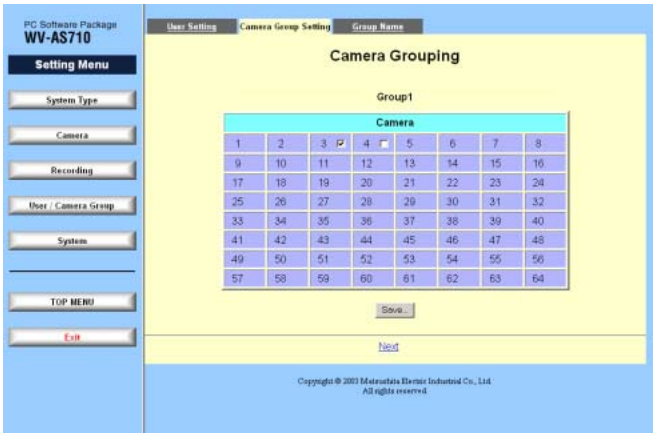
[User List] link text

Click this link text to return to the "User List" menu.

Camera Grouping

Click the [User/Camera Group] button of the "Setting Menu" and click the "Camera Group Setting" tab to display the "Camera Grouping" menu.
Assign cameras to groups on this menu.

Note: Assignment of a camera to a group using this menu is possible only when "By Camera Group Setting" is selected from the "Camera Properties" menu of the selected camera. (Check boxes will be displayed on this menu.)



Camera (1 - 64/1 - 128)

Assign cameras to desired groups. Only cameras with the check box can be assigned. The number of cameras differs depending on the selected system type.

[Save...] button

When this button is clicked, the dialog window for confirmation will be displayed. Click the [OK] button in the dialog window to confirm.

Note: If any other menu is displayed without clicking this button after editing, the settings in the network camera server will not be updated.

[Previous] link text

When a previous group page exists, this link text will be displayed. Click this link text to display the previous group page.

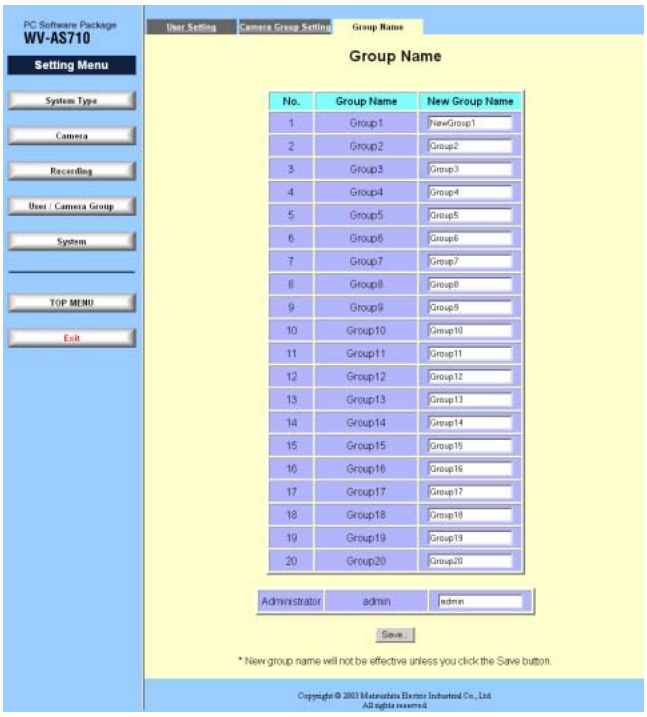
[Next] link text

When a next group page exists, this link text will be displayed. Click this link text to display the next group page.

Group Name

Click the [User/Camera Group] button of the "Setting Menu" and click the "Group Name" tab to display the "Group Name" menu.

Note: Addition or deletion of a group is impossible.



No.

The number of the group is indicated. There are "1" to "20" and "admin".

Group Name

The current group name will be displayed.

New Group Name

Enter a desired new group name of up to 32 alphanumeric characters.

[Save…] button

Click this button to save the new group name. When this button is clicked, the dialog window for confirmation will be displayed. Click the [OK] button in the dialog window to confirm.

Note: If any other menu is displayed without clicking this button after editing, the settings in the network camera server will not be updated.

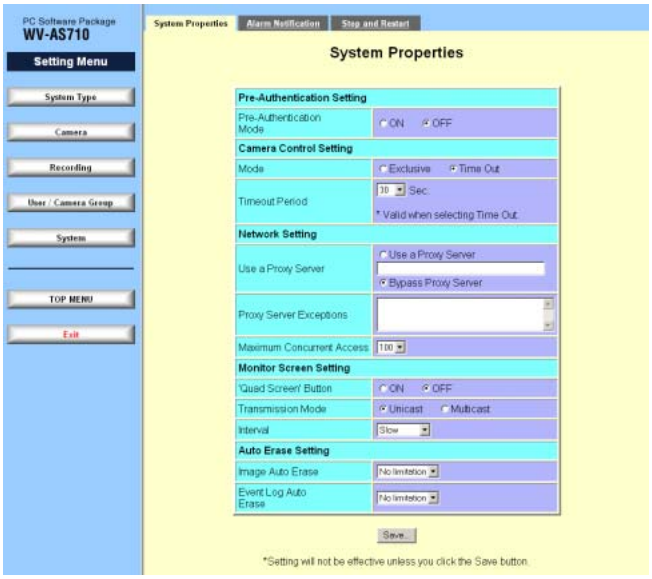
Administration

Perform the following system settings of the network camera server. Stop or restarting the WV-AS710 is also possible.

- System Properties (Pre-Authentication Setting, Camera Control Setting, Network Setting, Monitor Screen Setting, Auto Erase Setting)
- Alarm Notification
- Stop and Restart

System Properties

Click the [System] button of the "Setting Menu" or click the "System Properties" tab to display the "System Properties" menu.
Perform the basic settings of the network camera server.



Pre-Authentication Setting

Pre-Authentication Mode

Select "OFF" to not display the authentication dialog window until the authentication is required. When "ON" is selected, the authentication dialog window will be displayed when accessing a camera for the first time after a web browser started up. In this case, if an entered user name and a password are authenticated once, the authentication dialog window will not be displayed until shutting down the web browser. However, the authenticated dialog window will be displayed when accessing a camera to which is not allowed to access or operate.

Camera Control Setting

Mode

Select "Exclusive" to allow a user to operate a camera exclusively. Select "Time Out" to give a certain time period to operate a camera exclusively.

Exclusive: If this mode is selected, for example, when user 1 accesses camera 1, the other users cannot access camera1 until user 1 accesses another camera. To prevent continuous "Exclusive" mode, the "Exclusive" mode will be released automatically 10 minutes after the user has finished operation of the camera

Time Out: If this mode is selected, a user can operate a camera exclusively for a certain period of time (Time Out Period), and the other users cannot access the camera until the control time has passed.

Time Out Period

Select an exclusive control time from the pull-down menu for the "Time Out".
30, 60, 90, 120, 150, 180 (sec.)
The selected value will be ignored when "Exclusive" is selected for the "Mode" of "Camera Control Setting".

Network Setting

Use a Proxy Server

Select "Use a Proxy Server" with an IP address and a port number of a proxy server when the network camera server acquires camera pictures via a proxy server from a camera site.
Enter (colon (:) port number) just after an IP address.
For example: 192.168.0.50:85
When camera pictures are not acquired via a proxy server, select "Bypass Proxy Server".

Proxy Server Exceptions
When a proxy server is used to capture camera pictures, enter the IP address of the network camera or the network interface unit when acquiring camera pictures directly not via a proxy server. When entering two IP addresses or more in this input box is required, insert a comma "," between the IP addresses.
Maximum Concurrent Access
Select a number for maximum concurrent accesses from the pull-down menu.
12, 15, 20, 30, 45, 60, 80, 100, 150*, 200*
*: Only when "Live View Only" is selected for the system type of the network camera server.
When number of accesses becomes more than the selected number, the following picture will be delivered to users who accessed after it reached the maximum concurrent access limit.

Monitor Screen Setting

'Quad Screen' Button
Select "ON" to display the "Quad Screen" when the "'Quad Screen' Button" is clicked. Select "OFF" to not use the "Quad Screen". When "OFF" is selected, the [Quad Screen] button will not be displayed.
Transmission Mode
When using cameras delivering MPEG-4 live camera pictures, select either "Unicast" or "Multicast" to deliver MPEG-4 live camera pictures to a user site.
Unicast: MPEG-4 live camera pictures will be delivered in unicast mode.
Multicast: MPEG-4 live camera pictures will be delivered in multicast mode. To use this mode, set the LAN card (eth0) on the PC server to the delivering side.

Note: Pictures from cameras with operating restriction will be delivered in the unicast mode. (Selecting "Multicast" will be ignored.) This setting does not affect MPEG-4 acquisition. Select the unicast mode on the setting menu of the camera delivering MPEG-4.

Interval
When using cameras delivering JPEG camera pictures, select an interval for acquiring pictures. Very Fast, Fast, Middle, Slow, Very Slow
When the network camera server and a user site is connected with a line faster than 100Mbps, refer to the following (picture size of all cameras are the same).
When the selected value for "Interval" is not proper, the camera pictures will not be displayed correctly.

Maximum Concurrent Access	QVGA	VGA
12	Very Fast	Middle
15	Fast	Middle
20	Fast	Slow
30	Middle	Slow
45	Middle	Very Slow
60	Slow	Very Slow
80	Slow	Not Recommended
100	Slow	Not Recommended
150 (Live View Only)	Very Slow	Not Recommended
200 (Live View Only)	Very Slow	Not Recommended

This setting will be ignored when cameras delivering MPEG-4 pictures since they deliver pictures according to the settings of camera.

Auto Erase Setting

Image Auto Erase

Select a period to keep recorded pictures in the disk space for recorded pictures.

7 Days, 15 Days, 30 Days, 60 Days, 90 Days, 180 Days, No limitation

When the selected period has passed, the stored recorded pictures will be deleted.

Event Log Auto Erase

Select a period to keep event information recorded in a database.

7 Days, 15 Days, 30 Days, 60 Days, 90 Days, 180 Days, No limitation

When the selected period has passed, the event information will be deleted automatically.

It is impossible to search events in the deleted event information using "Event Search".

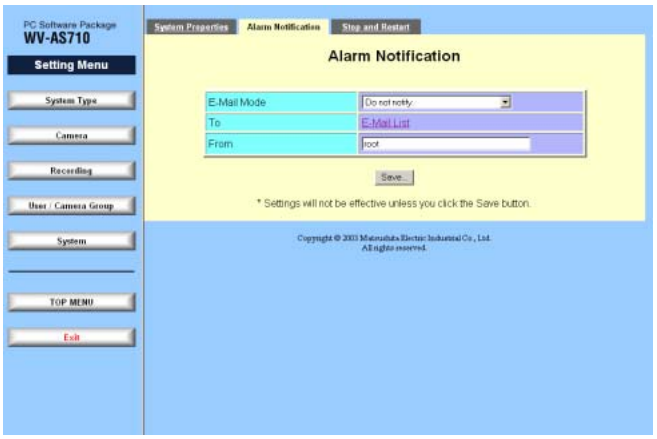
[Save…] button

Click this button to save the settings of the "System Properties" menu. When this button is clicked, the dialog window for confirmation will be displayed. Click the [OK] button in the dialog window to confirm.

Note: If any other menu is displayed without clicking this button after editing, the settings in the network camera server will not be updated.

Alarm Notification

Click the [System] button of the "Setting Menu" to display the "System Properties" menu and click the "Alarm Notification" tab.
The "Alarm Notification" menu will be displayed.
Perform the settings concerning what the network camera server should do when an alarm occurs on this menu.



E-Mail Mode

Select when the network camera server should send e-mail.
The network camera server will attach an alarm picture to the e-mail by selecting alarm type.

Notes:

- When notifying of an alarm occurring by e-mail, set the LAN card (eth0) on the PC server to the delivering side.
- In the following cases, notifying the correct IP address of the network camera server by e-mail may fail:
  - When the LAN card (eth0) on the PC server is not set to the delivering side.
  - When a router is installed between the Internet and the network camera server and network address translation (NAT) is used. In this case, open all files whose name starts from "template_alarm" in "/usr/local/s3/template/" with an editor software, and change the "%i" part to make addresses accessible to the Internet.
- In the following cases, it will not be possible to browse pictures even if an address in an e-mail is clicked:
  - When "Do not notify." is selected for "E-Mail Mode".
  - When an alarm has been transmitted by a camera set to deliver MPEG-4 pictures.
  - It will be impossible to identify which camera is transmitting an alarm signal if a router is installed between the camera site and the network camera server, and when sharing an IP address at the center site for two or more cameras using network address translation (NAT). In this case, the network camera server will regard the camera with the lowest camera number as the camera transmitting the alarm signal.

Notify: alarm/image acquisition loss

Send e-mail to the registered e-mail addresses in the "E-Mail Setting" menu when an alarm occurs at a camera site, or if it fails to acquire camera pictures.

Notify: alarm

Send e-mail to the registered e-mail addresses in the "E-Mail Setting" menu when an alarm occurs.

Notify: image acquisition loss

Send e-mail to the registered e-mail addresses in the "E-Mail Setting" when it fails to acquire camera pictures.

Do not notify.

Do not send e-mail.

What is "image acquisition loss"?

When the network camera server cannot acquire pictures from a camera site, the network camera server regards it as "image acquisition loss". The "image acquisition loss" may happen when a camera is malfunctioning, the power of the camera is off, breaking of wire, connection trouble, etc.

To

Click the [E-mail List] link text to display the "E-Mail Setting" menu. Enter e-mail addresses of recipients on the "E-Mail Setting" menu.

From

Enter the e-mail address of the sender of up to 128 alphanumeric characters.

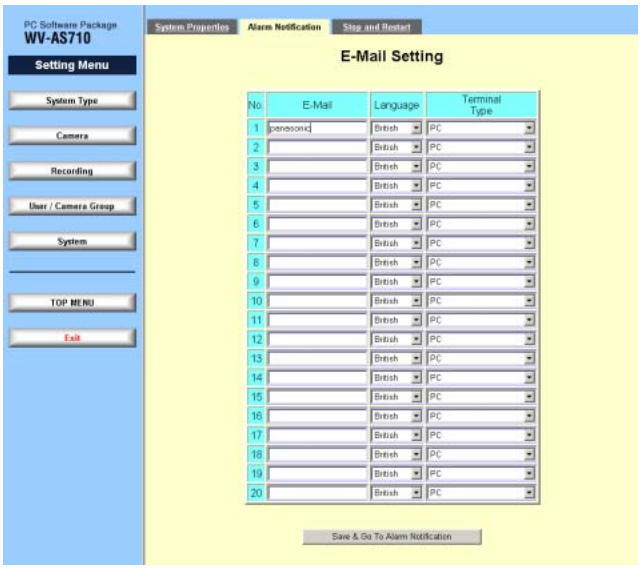
[Save…] button

Click this button to save the settings of the "Alarm Notification" menu. When this button is clicked, the dialog window for confirmation will be displayed. Click the [OK] button in the dialog window to confirm.

Note: If any other menu is displayed without clicking this button after editing, the settings in the network camera server will not be updated.

E-Mail Setting

Click the [E-mail List] link text on the "Alarm Notification" menu to display the "E-Mail Setting" menu. Up to 20 e-mail addresses of recipients can be registered on this menu.



E-Mail

Enter e-mail addresses of recipients to which an alarm mail will be sent. (Up to 512 alphanumeric characters)

To delete an e-mail address, simply delete it from the input box.

Language

Select the language used in the alarm mail. The arrangement of the date will be different depending on the selected language.

Japanese: Japanese: Year/Month/Day

American: American English: Month/Day/Year

British: British English: Day/Month/Year

Terminal Type

Select the terminal type of the recipients. The picture size differs depending on the selected terminal type.

GIF portable telephone: Send an alarm mail to a portable telephone that can display GIF pictures. The picture size will be 120 (W) x 90 (H) pixels.

JPEG portable telephone: Send an alarm mail to a portable telephone that can display JPEG pictures. The picture size will be 160 (W) x 120 (H) pixels.

PC: Send an alarm mail to a PC. The picture size will be the same size as the camera delivers.

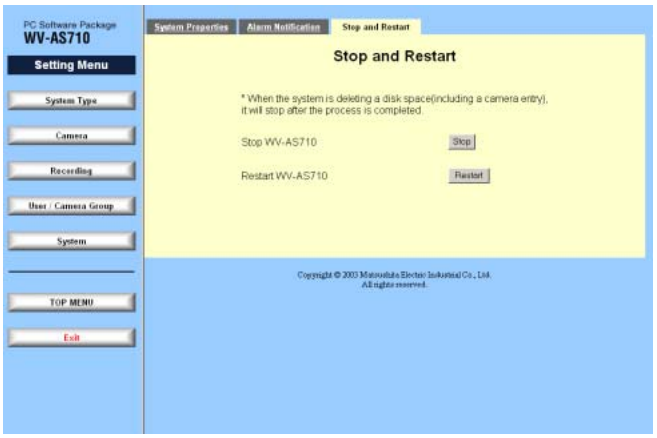
[Save & Go To Alarm Notification] button

Click this button to save the settings of the "E-Mail Setting" menu. When this button is clicked, the settings of the "E-Mail Setting" menu will be saved and the "Alarm Notification" menu will be displayed.

Note: If any other menu is displayed without clicking this button after editing, the settings in the network camera server will not be updated.

Stop and Restart

Click the [System] button of the "Setting Menu" to display the "System Properties" menu and click the "Stop and Restart" tab.
The "Stop and Restart" menu will be displayed.
To stop or restart the WV-AS710, click the [Stop] or [Restart] button on this menu.



[Stop] button

Click this button to stop the WV-AS710. When this button is clicked, the dialog window for confirmation will be displayed. Click the [OK] button on the dialog window to confirm.

Note: This button stops only the WV-AS710. Red Hat Linux will not be shut down with this button.

[Restart] button

Click this button to restart the WV-AS710. When this button is clicked, the dialog window for confirmation will be displayed. Click the [OK] button in the dialog window to confirm.

This button restarts only the WV-AS710. Red Hat Linux will not restart with this button.

Notes:

- When it is needed to stop the WV-AS710, use the "Stop and Restart" menu. Confirm the message "Stop Server System" is displayed.
- When forced termination is performed by pressing the Ctrl key and the C key simultaneously or entering the "kill" command, pictures in the disk space may be broken. When it is needed to stop the WV-AS710, always use the "Stop and Restart" menu.
- During processing, for example, changing disk space for recorded pictures, the WV-AS710 will be unable to stop. In this case, try to stop after the WV-AS710 finished any process.

Troubleshooting

Troubles / Symptoms	Points to be checked / Solutions
•Cannot start up the WV-AS710.	• Is the message of "Can't create s3.pid; running already or permission denied." displayed? It seems that the WV-AS710 multiply started. Check if the WV-AS710 is already started or not. If the WV-AS710 has not started yet, the WV-AS710 might have been forced to stop last time. Check if "s3.pid" file exists in the "/var/run/" directory or not. If it exists, delete it.
Failure to acquire pictures.	• Is the WV-AS710 started up? • Are the power of the network interface unit and the cameras on? • Are the IP addresses entered in the "Camera Properties" menu correct? • Depending on the traffic on the network, it may happen that automatic reload of pictures from a web browser may stop. In this case, click the reload button of the web browser. • Is the monitor resolution set to True Color 24 bit or more? • Are the settings of the network interface unit correct? When the network camera server and the network interface unit are used in the same system, do not set the network interface unit to "Random Input Selection Mode". Refer to the operating instructions of the network interface unit for further information.
Cannot change the image size using the [VGA]/[QVGA]/[CIF]/[QCIF] buttons.	• Are "Block All Cookies" or "Invalid" selected or not selected in the settings of the web browser? In both cases, select "Accept All Cookies".
Cannot operate the camera even though monitoring the pictures is possible.	• It is possible that another user is operating the camera. Try to operate it later. • It is possible that the camera has an operating restriction. Refer to an administrator about your user type. • When operating WV-NM100, WV-NS320 or WV-NS324, enter "Access User Name" and "Access User Password" registered in the setting menu of the cameras.
Cannot select a camera using the "Camera List" menu. / Camera pictures do not change even though another camera is selected.	• Is the camera connected? • Is the same IP address entered in the "IP Address" on the "Camera Properties" menu and on the setting menu of the camera site?

Troubles / Symptoms	Points to be checked / Solutions
The blue still picture is displayed.	• Is the power of the camera on? • Is the power of the network interface unit on? • Is the "Active" selected on the "Camera Sleep Schedule Properties" menu? • Is it possible to establish the transmission between the network interface unit and the network camera server? Confirm it using "ping" command. • Are the IP address of the network interface unit and the channel of the camera correct? • Is the "ON" selected for the authentication of the network interface unit? If it is, enter the valid user name and password. • When using a line with slow data transmission rate such as analog lines, it may rarely happen that a still picture is displayed. If this happens, select a slower interval for the "Interval" of the "System Properties" menu.
Cannot perform preset operations.	• Does the camera have the preset function? • Is the preset position setting performed also for the camera not only for the software?
The camera does not return to the home position.	• Does the camera have the preset function? • Is the home position setting performed also for the camera not only for the software?
Cannot play. / Cannot record. / Cannot search.	• Is the user authenticated to operate the camera? If it happens even though authenticated, refer to an administrator.
No result is displayed when searching by the recording time.	• Do the clock both of the server and the PC have the exact time? The search function refers to the clock of the network camera server. When the clocks have different times, the search function may work incorrectly. Synchronize both clocks. • Is the clock of the network camera server correct? The network camera server refers to the clock of the server for recording. Keep the right time for the clock of server.
The played picture is not displayed. / The camera number and the time are not displayed when monitoring the played picture.	• Are the java applets, JavaScript and ActiveX enabled?
Cannot record any more.	• Is the disk space full? If it is, back up the data and clear the protected disk space, or add the disk space if necessary.

Troubleshooting

Troubles / Symptoms	Points to be checked / Solutions
The registered address was not notified by e-mail when an alarm occurred or after image acquisition loss.	• Is the "Do not notify." selected for the "E-Mail Mode" of the "Alarm Notification" menu? • Is the mail system of the server activated correctly? Check from the PC using the "mail" command if the network camera server is activated and confirm that mail can be delivered to the designated address. • Is the mail address correct?
The authentication dialog window keeps on being displayed even though it is cancelled each time.	• Force the web browser to shut down. The way to force termination is different depending on the OS. Refer to the operating instructions of the OS.
The "TOP MENU" or the pages to browse the camera pictures cannot be displayed.	• Is the URL correct? • Is the Apache HTTP Server started up? • Is the description of the html document correct? • Is the description of the setting file for the Apache HTTP Server correct?
Cannot display a part of JPEG picture.	• When using Internet Explorer 5.5 SP2 on Windows 2000, the bottom line part of the JPEG may not be displayed. Upgrade the web browser to Internet Explorer 6.0 SP1.
Cannot acquire camera picture. / Alarm function does not work correctly.	• When a DDNS server is used, it may happen if the IP address revision information is accessed before the DNS server updates it. In this case, using a static IP address is recommended.

Matsushita Electric Industrial Co., Ltd.
Osaka, Japan
http://www.panasonic.co.jp/global/

2003 © Matsushita Electric Industrial Co., Ltd. All rights reserved.
N0403-0 V8QA6138AN Printed in Japan